The Croonian Lectures,

BEING A

CONTRIBUTION TO THE HISTORY OF THE RESPIRATION OF MAN.

Delivered before the Royal College of Physicians of London on June 18th, 20th, 25th, and 27th,

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LECTURE I.

Delivered on June 18th.

MR. PRESIDENT AND GENTLEMEN,—Allow me to begin by returning my best thanks for the honour of being called upon by this College to deliver the Croonian Lectures for the present year. In these four lectures I propose to draw your attention to certain phenomena of human respiration. As far back as 1876 I was led, while mountaineering in the High Alps, to inquire into the influence of altitude on respiration; this work was continued every summer till 1880. The inquiry showed clearly that there was a great deal more to be done on the subject of human respiration; and through the kindness of Professor Schäfer, a laboratory having been placed at my disposal at University College, the work commenced in the High Alps was continued in London, with the aid of assistants, from the year 1883 to the present time. I propose in this first lecture to treat of the relations of the oxygen breathed with the life of the tissues; the second lecture will be devoted to the various forms of respiration in man; the third to the influence of volition on respiration; and the fourth to respiration carried on under exceptional circumstances, concluding with remarks of a more strictly medical character.

THE VITAL ENERGY AND CHEMICAL ACTION WITHIN THE LIVING BODY.

Vital energy, vital force, or vitality, the cellular life of Virchow, may be defined as power or energy existing in the cell and radiating from it. This cell has oxygen as part of its molecular constitution, and with the aid of this oxygen is constantly undergoing change or metabolism with more or less energy, according to age, health, &c. It might be considered at first sight as if the test of vitality is the degree of power with which life clings to living organisms—such, for example, as seeds. Reliable information on this subject is to be found in *Nature Notes* for 1895, where it is stated by Dr. Carruthers that forty years ago Robert Brown succeeded in obtaining the germination of seeds of the Nelumbium water lily, which had been preserved in boxes for fifty years in Sir Hans Sloan's collection and another 100 years in the herbarium of the British Museum. I am much indebted to Dr. Carruthers' kindness in showing me those seeds preserved in acid, which had sprouted to the height of several inches. Dr. Peter of Göttingen has succeeded in obtaining the growth of seeds from the soil of a dense wood with trees 100 or 150 years old; he has also shown that the seeds of many field plants retain their vitality for considerably more than half a century. The vital resistance of seeds is moreover illustrated by the fact that they have been exposed to the greatest degree of cold obtainable by artificial means without losing their power of growth. These remarkable phenomena might possibly find an explanation in the following considerations. Life is a contest between vital energy and that other energy known as chemical decomposition. The instant an animal dies chemical decomposition comes into play, and the first change to take place is a combination of the oxygen, which is part and parcel of the molecular tissue. Once that oxygen gone, recovery of life is impossible.

It has been observed that in the case of animals one of the first decompositions to set in has for its result an acid state of the muscles, this acid being looked upon by Catherine Schipiloff from her experiments as the cause of rigor mortis. If we now return to seed life we shall find that it may be protracted, as it were, indefinitely under conditions which entirely check decomposition. The seeds of the Nelumbium speciosum, preserved for 150 years, had dried up and undergone no fermentation, and those cultivated by Dr. Peter had clearly found in the soil some preserving or sterilising material. It is but natural to conclude that a molecule of wheat, or of any other seed under such conditions, would retain its oxygen, though without being able to make use of it because of the absence of moisture and probably also of certain bacilli which have been found necessary to vegetable growth; hence the seed was not dead, but its life remained in a potential form, or under the form of vibrations too weak to produce any other effect than maintain themselves. So long as oxygen is present as a molecular constituent these vibrations will continue, but they will cease the instant this oxygen has disappeared. It cannot be said that the vitality of seeds is great, but only that seeds under certain atmospheric conditions are not acted upon by those chemical forces known to decompose vegetable tissues. Given an animal suddenly placed in a state resembling death, but in which it could retain its combined oxygen, would it not be possible to maintain its life in abeyance and ready to be restored on a return to favourable circumstances? The experiments of Raoul Pictet, the physicist who was the first to liquefy air, appear to give an affirmative reply to this question. In his experiments on fishes he has rapidly frozen them so hard that, according to his statement, they were in a state allowing of their being snapped asunder like a stick, and yet they have recovered life when very gradually thawed. It will be seen in the course of this lecture that when fish are frozen up and completely embedded in the ice during a winter's frost they cannot be brought to life again; hence it appears that the essential condition for the preservation of life is that the fish shall be frozen so rapidly that decomposition cannot possibly commence. Indeed, it is reasonable to conclude that, in Pictet's experiments, the molecules of tissue were frozen with their oxygen before they had time to dispose of it, and that this oxygen reacting on the molecules of tissue under favourable circumstances brought the fish to life, exactly as it happened that the reaction of oxygen in the seed brought the seed to life after life had been quiescent for fifty, or perhaps hundreds of, years.

As already stated, no phenomena of metabolism can take place without the interference of oxygen or atmospheric air. The amount of air or of atmospheric pressure required may certainly vary within wide limits, and we all know that with training and slow transition from the seaside to lofty mountain stations a considerable state of adaptation may be obtained. The action of oxygen in the living body, though, so far, very obscure, is a most interesting study, and first I shall hope to be able to show in a conclusive manner that it is not the oxygen in the atmosphere which by offering itself to the tissues brings about the tissue changes, but because the tissues are undergoing change they require and resort to the oxygen of the atmosphere; hence the more active the change the more oxygen required, and *vice versâ*. It is often thought that more carbonic acid is formed when an increased volume of air is voluntarily breathed. This is not so, the excess of carbonic acid given out from the lungs being due to the emission of some of the carbonic acid normally present in the blood and not to increased combustion, except a very small amount for the extra muscular work of forced breathing. One of the several objects of oxygen is to produce heat; some of this heat being transformed into motion, is not perceptible by the thermometer, while another portion manifests itself as heat and can be directly observed. In cold-blooded animals the heat produced is entirely transformed into motion, but this is not the case with warm-blooded animals, which have an excess of heat ready for use; the latter find, therefore, in their bodies a large supply of power wanting in the former. If the production of heat is so intimately connected with life that life cannot exist in an active form without it, what is the essential nature of heat? Physicists regard this condition of matter as the result of a vibratory motion of its ultimate molecules, very feeble but very rapid, which is transmitted through the intermolecular and interplanetary spaces by the ether of space. From this view the warmest bodies will be those whose molecules vibrate with the greatest speed and amplitude—bodies as they become warm or cold merely gain or lose motion. Since in the living body heat is continually produced, the molecular vibrations producing it are ever at work; this formation of heat, which is due to the reaction of oxygen on organised matter, may therefore be looked upon as the very fundamental condition of life. If oxygen is thus indispensable to life, it must be within

easy reach of the living tissues, including protoplasm, and there is no doubt that it is carried through tissues and protoplasm, which seize upon it in accordance with their requirements. Ludimar Hermann (Stoffwechsel der Muskeln) has caused muscles to contract *in vacuo* and obtained measurable quantities of carbonic acid; obviously in these experiments the oxygen required was contained in the muscles themselves, this oxygen, through certain chemical changes, producing sufficient heat for the contraction. Therefore it cannot be doubted that at all events in muscles, if not in all tissues, oxygen enters into their molecular constitution, and it has been suggested that the molecules of muscular fibre are surrounded by a layer of oxygen available for immediate use, the molecule seizing on more oxygen from the blood as fast as its own store is used up. The adoption of this view of the constitution of muscular molecules will help to explain the immediate response of muscles to the action of the will. If after sitting quietly we suddenly raise a heavy weight or deliver a blow, the oxygen is there to do the work. A salmon will leap a weir several feet in height with a single stroke of its tail. How is the heat for that leap produced if not from the oxygen in the molecular structure of the muscles themselves? We do not know, however, by what process this heat is produced. It is not looked upon as due to any direct oxidation, but appears to result from some power of an explosive nature with which oxygen would be concerned. Hermann observes that we have not a single example of sudden oxidation in the body.

My remarks so far are only concerned with an attempt to explain how heat is produced in the body, and do not suggest a cause; and again here we have to stop short and assert our ignorance. There must be, however, a cause, a power producing these heat vibrations, a power which reacts against cold and generates heat where, according to physical laws, the body ought to cool—a power which builds up tissues and destroys them, which may produce for muscular exercise an amount of heat four times as great as in a state of rest. That power, whatever it may be, must reside in the ultimate molecules of tissue, or perhaps it is the vibration of some intermolecular matter, and that power is intimately connected with heat vibrations, and cannot be exerted without the presence of oxygen gas. An apparently available means of judging of the primary cause of the formation of heat in warm-blooded animals would be to inquire into the reasons of the increase or decrease in the generation of their heat. A common cause of the production of an increase of heat in health is an accession of cold, as shown by the excess of carbonic acid expired, this increase being sufficient to counterbalance exactly the extra heat withdrawn, so that the body retains its normal temperature. The only explanation I can suggest is that cold increases the vibrations we regard as the essence of life, and these vibrations are communicated as heat vibrations to the living molecules, when a greater development of chemical action ensues. To give an idea of the effect of cold in promoting the formation of heat in the body, I beg to quote the following experiment, made in the winter of 1891-92, to which my assistant, Mr. B. F. Davis, B Sc., aged twenty-one, kindly submitted. The volume of air and carbonic acid expired in a given time was determined indoors at a temperature of 53° F.; we then adjourned to the open grounds of University College, where a cold north wind was blowing and the temperature registered 36°. After walking for a quarter of an hour and then remaining at rest for twenty minutes the air expired by Mr. Davis was again collected and analysed, with the following results:—

	Litres.
Volume of air expired per minute at 36° F. reduced to freezing temperature and seaside pressure	4·858
Volume of air expired at 53° F.	3·455
Increase in the cold	1·403
	Cubic centimetres.
Carbonic acid expired per minute at 36° F.	284
" " " " 53° F.	217
Increase in the cold	67

Equal to an increase of 30·9 per cent. for a difference of from 53° to 36°.

Another experiment in which the external temperature was 26° gave after fifteen minutes' exposure to the cold a volume of air expired per minute of 4·530 litres (the volume of air expired in the warm laboratory before going out was 4·0 litres per minute). After a further ten minutes the volume per minute had increased to 4·726 litres, and a few minutes later to 5·306 litres, showing the necessity of increased respiration towards the resistance of the body to the gradually intensified action of the cold. The object of taking a cold bath in the morning is clearly to excite the energy for the day's work, and the practice is undoubtedly beneficial, so long as health and age do not interfere with the reaction or with the increased formation of carbonic acid. The application of cold to even a limited surface of the body is sufficient to produce an increase of combustion and therefore of energy, as shown by the following experiment. Having determined the volume of air and of carbonic acid given out in a certain time before the experiment, the left hand was plunged into a bucketful of water at 51·8°, when the volume of air expired rose from 4·224 litres per minute before the immersion to 4·795, and the carbonic acid produced from 181·6 c.cm. per minute to 204·7 c.cm. Though an increase of vital energy is produced by a moderate degree of cold, the reverse obtains when the cold is excessive or continued too long, the vibrations of living matter being apparently weakened. This probably means that, while more intermolecular oxygen is wanted and absorbed under the influence of a moderate degree of cold, less is required and taken in when the cold is excessive. Cold lowers the vital energy more powerfully the lighter the air is, especially when applied to persons untrained to low barometric pressures, as training has an undoubted influence on the power of resisting cold.

I might recall an illustration of the depressing action of cold on myself and a young friend. In July, 1880 we spent three days on the summit of the Col du Géant, 11,000 feet above the sea level. In the valley at Courmayeur, before ascending the pass, the temperature of the air was 71° F., and barometer 29·948 inches; a number of determinations of the amount of carbonic acid expired were made at that station. At the summit of the pass, where the experiments were repeated, the temperature registered about 43° during the day, and much lower at night; the barometer was 20·09 inches. Instead of expiring more carbonic acid, as might have been expected, to make up for a fall of temperature of about 30°, we both expired less by 12 per cent. in my own case, and 16 per cent. in that of my young companion; we always felt cold, and our appetites fell off during our stay on the pass. Thus the united action of cold and diminished pressure had failed to excite our vitality, and, indeed, brought about the opposite result; had we been in better training this probably would not have happened. Not only may the intensity of the cold produce a depressing effect, but long exposure to cold is liable to act in a similar manner. The depressing effects of long-continued intense cold on Arctic explorers can hardly be doubted, though difficult to prove. In Dr. Kane's interesting account of his Arctic explorations he states that the health of the expedition suffered considerably the second winter, but as his ship was totally unprepared for two winters' stay in those regions it is in this case hardly possible to estimate the influence of the continued cold on the health of the explorers. The morbid effects produced in healthy persons by long exposure to low temperatures are often, apparently, of an inflammatory nature. The monks of the Great St. Bernard, who live in a cold and damp climate at an altitude of 8115 feet, though all young men and selected for their fitness to stand rough and cold weather, generally contract rheumatism or some gastric affection after a year or two, and have to leave the spot; though liable to bronchitis, few of them become phthisical. The prolonged cold of this last winter has exhibited its baneful effects in a striking manner, the average death-rate for several consecutive weeks being 9·5 per 1000 higher than the mean rate for the corresponding periods during the last ten years. It is, of course, impossible to say how far the increased mortality resulted from the long-continued action of the cold on healthy people, but it produced a decidedly lowering effect on persons weak or in ill health.

As stated at the commencement of this lecture, the physical effects of cold on animals have received much attention lately from Raoul Pictet. This gentleman has shown that very low temperatures put an end to all chemical and physical forces. Hydrochloric acid at −130° F. is entirely unattacked by metallic sodium, while at ordinary temperatures they react with explosive violence. In his experiments on animals the temperature of the vessel in which they were placed was gradually lowered from 98·6° to −351°. Raoul Pictet concludes from these experiments that warm-blooded animals resist for a considerable time the excessive action of cold, but when their power is on the wane death

takes place in a few minutes, the temperature in the centre of the body remaining nearly constant to the end of this struggle for life. Fishes, frogs, batrachians, and ophidians resist freezing at temperatures varying from 4° to — 22°; they usually die at a lower temperature. The length of time the animals were exposed to the cold is not stated, and this must be an important factor. Raoul Pictet, in one of his lectures, exhibited to his audience a number of gold-fish, pike, and frogs frozen, and in the following lecture these same fishes, having been slowly thawed, were shown living and well. In the *Pall Mall Gazette* of March 23rd, 1891, an apparently authenticated case is quoted of a small fish which had survived six or seven months' enclosure in ice stored in an icehouse at Godalming. I have myself had an opportunity this last winter of observing gold-fish which had been caught in the ice. In every case in which the fish was completely embedded in the ice it showed no signs of life on thawing. One of the fish was only partly encased in ice, and had a small quantity of water left round it; when examined it appeared lifeless, but after a time it recovered perfectly. On another similar occasion the fish showed signs of life, but failed to recover. These observations apparently show that, if not absolutely embedded in the ice, the life of fishes can be held in abeyance for a time at a temperature close to freezing, but for how long I cannot tell. Following up my contention in this first address, these experiments show that the maintenance of the molecular vibration or motion of life requires very little heat in cold-blooded animals, and it may be concluded that at such a low temperature as 4° the heat is just sufficient to keep up life in the feeblest possible way. If the return of life movements be disturbed by too great an accession of heat, the vibration is immediately arrested, and a most careful handling is required to restore life to its full activity. At the beginning of this address I remarked as a proposition to be proved that it is not oxygen which by offering itself to the tissues brings about tissue change, but that the tissues make a call—a demand—on the atmospheric oxygen. In favour of this view the influence of cold on vitality was considered, and it was shown that cold up to a certain limit increased the vitality, but beyond that limit produced an opposite effect.

We have now to consider a state of life which to my mind bears some relation to the increased production of carbonic acid in the body from an accession of cold—I mean muscular exercise. The successive phenomena in muscular contraction are as follows. First, volition towards exercise produces an increase in the volume of air breathed, which occurs immediately before contraction or simultaneously with its commencement. At the same time, as will be shown in my third lecture, a certain amount of oxygen is apparently absorbed in the motor centres of the brain corresponding to that muscular exercise. An excess of carbonic acid is now expired, which at first obtains its oxygen from that contained within the muscles, and in proportion as this is used up the oxygen required is taken from the air breathed, the muscles at the same time charging themselves afresh with oxygen from the atmosphere. A number of experiments I made confirm this view. I must also state that we do not know by what process the carbonic acid is formed. The mode of exercise adopted in my experiments was raising the feet alternately 66 times per minute to a height of about 4 inches, in keeping with the striking of a metronome. The air expired was collected during successive periods and analysed. In the first period of three minutes the oxygen consumed from the air amounted to 719 c.c. per minute, in the second period of three minutes the experiment was lost, the third period of three minutes gave 770 c.c. of oxygen consumed per minute, the fourth 834 c.c., the fifth 799 c.c., and the sixth period of three minutes 775 c.c. From these figures it will be seen that during the first three minutes of exercise the oxygen consumed was only 719 c.cm. per minute, although the heat required was the same as after six minutes or nine minutes, when much more oxygen was consumed from the air; hence it cannot be doubted that the muscles drew upon their molecular oxygen to a marked extent. These experiments were made on a former assistant. A series of experiments on myself, and another on my present assistant, gave corresponding result.

The connexion of exercise with respiration will be more fully inquired into later; in the meantime, if the amount of oxygen consumed by the body is a measure of the activity of the tissue change then exercise will be a means of keeping up and exciting the life of tissues, and thereby giving them additional power to resist any abnormal charge constituting disease. The overdoing of exercise is baneful in a great measure because of the difficulty the body will experience in obtaining from the air sufficient oxygen for the work, but perhaps as much also on account of the trouble required to rid the blood of the excess of carbonic acid formed which accumulates in the circulation. Muscular exercise is generally looked upon as raising the temperature of the body, although it may also be attended with a cooling effect; and this leads me to consider the question of the body temperature in the act of ascending. But before entering on this subject allow me to offer a few remarks on the methods in use of testing the temperature of the body.

In 1838 I had occasion to enter into a controversy with a Swiss gentleman, Dr. Vernet, who published results he had obtained from taking his temperature while engaged in mountaineering. He maintained that the only correct method of estimating animal heat was by means of a thermometer introduced into the rectum. Being in the habit of taking temperatures under the tongue, a method in general use clinically, I was anxious to ascertain the accuracy of Dr. Vernet's assertion. We accordingly together ascended the Dôle, one of the highest points of the Jura, and on nearing the summit, about 4000 feet in height, we found that with both of us there was a distinct rise of the rectal temperature. This experiment was not, in my opinion, conclusive, as in the act of climbing the blood, from the effect of gravity, must accumulate in the hæmorrhoidal vessels, leading to a state of congestion, and thus to a rise in temperature. The question, however, could only be settled experimentally. Five simultaneous observations of rectal and sublingual temperatures on different days while resting quietly in bed gave a mean excess of 0·3° F. in favour of the rectal temperature, while very moderate exercise, such as slowly walking about my room, produced a rise of the rectal temperature decidedly in excess of that observed under the tongue. Three experiments gave differences of 1·3°, 0·9°, and 0·8°, or a mean difference of 1·0° excess for the rectal temperature, and this was merely from moderate walking exercise in the room, and could not have been due to a general increase of temperature throughout the body; hence it appears that though there may be a very slight increase of the rectal over the sublingual temperature, when taken under circumstances affecting the temperature in both regions equally, still the moment a person is standing or walking, the rectal temperature is increased notably beyond the sublingual, which is simply due to a state of congestion produced by gravity. There remains the possibility of the cold in high altitudes acting through the submaxillary region and thus reaching the under surface of the tongue. To clear up this point I applied pieces of ice under the chin while the bulb of the thermometer was maintained under the tongue. On two occasions there was a perceptible rise in the temperature the moment the ice was applied, a phenomenon also observed by Raoul Pictet in his experiments on the application of cold to animals, and this was followed by a slight fall; the fall in three experiments amounted to 0·2°, 0·6°, and 0·5° in the course of from thirty to forty-eight minutes; therefore the application of ice to the submaxillary region affected but very slightly the sublingual temperature. The temperature of the body while ascending has been for a long time past subject to discussion. In 1865 Professor Marc Dufour, in his inaugural dissertation to the medical faculty of Zürich, stated from experiments made on himself that in the act of ascending the temperature of the body falls rapidly by about 0·4°. Another gentleman, Professor Fick, has observed the same phenomenon; many observers find that the body temperature is slightly increased by muscular exercise. In 1869 I began to give attention to this subject, and invariably found that my temperature fell while ascending, the extent of the cooling being dependent chiefly on the time which had elapsed since the last meal was taken, and to a less extent on altitude and atmospheric temperature. In general the fall of temperature was most rapid when ascending quickly, while fasting and perspiring freely. These inquiries were followed closely by those of Professor Lortet of Lyons, who obtained similar results. The observations of Dr. Clifford Allbutt, F.R.S., with three exceptions, gave results opposed to ours. Many other reliable observations have been published which seem to contradict one another. Thus Professor F. A. Forel of Lausanne found that the muscular work of ascending raised the body temperature; Mr. Gay of Strasburg observed a decrease of temperature on ascending, and the same

phenomenon was observed by Professor Ray Lankester. Hence it must be concluded that the influence of climbing on the temperature of the body varies with different persons. Some in thorough training, young, perspiring but little, and consuming as a rule a large amount of oxygen, or developing much heat under ordinary circumstances, will observe their temperature to rise in the act of ascending; others, who develop less heat, will generate just the amount they require for the exercise, but, the cold air and perspiration cooling the body, its temperature will fall below the normal.

The Bowman Lecture

ON

SUBJECTIVE VISUAL SENSATIONS.

Delivered before the Ophthalmological Society on June 14th, 1895.

BY W. R. GOWERS, M.D. LOND., F.R.S.,

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MR. PRESIDENT AND GENTLEMEN,—I count it no small honour to be one of the links of the chain of "Bowman Lecturers"—a chain which connects the recent past, and also the days that have already faded in the distance, with a future that will be, we hope, remote. Thirty-five years ago the names of Todd and Bowman were those of the makers of some, and the framers of much, of the physiology then current. Their names were on the lips of teachers in connexion with discoveries and work which then seemed distant to the student who made his first entry in the world of science. They seemed so much part of the past that it was almost a shock to learn that, though one of the illustrious pair had ceased from his labours, the other was not only an active worker, but was the leading ophthalmic surgeon of Europe. When, in after years, I came to know him personally, although but slightly, his personal characteristics impressed me as the very ideal of refined mental power, combined with quiet earnestness and with the courtesy that is born of perfect kindness—all expressed in a face and manner which once seen no memory could lose. It will always be a source of satisfaction to me to remember that, though the suggestion would probably soon have been made by another, I had the privilege of directing the attention of the Council to the fitness of connecting the name of Bowman with the Ophthalmological Society by the establishment of this Lecture, that the suggestion bore immediate fruit, and that it was a source of pleasure to him we thus honour, and by which not less are we also honoured. Alas, the lecture is now delivered to his memory, but it is pleasant to think that the society did not postpone its establishment until the time had passed when it could give pleasure to him to whom the expression of regard was given. Is it not sad that so often the living are only awakened to a sense of that which should be, by the death which makes it a satisfaction only to those who render? Although the Bowman Lecture is now only a memorial, the memory which it keeps up is still a vivid recollection to a large number of the members of our society. With each year, however, the number of those who bear in mind that impressive and inspiring personality must become fewer. To one who still retains it, the memory gives to the task of delivering this lecture a keen sense of responsibility, lest he should fail to strike the note of severe restrained regard for all that is highest in scientific effort which Bowman ever set. To rise to his level is beyond the power of more than one of those who each century may give his lecture, but the personal fear of inadequacy is lessened by the recollection that no one was ever more ready than he to see the effort where performance failed, to commend the trifling good, and to ignore that which, far more obtrusive, might reasonably warrant censure, a censure which, for merely intellectual failure, never, I think, came from him. I need this consciousness to-night, for I cannot follow his great example of absolute practical homage to fact, to fact observed with definite precision. Alike in the science of life in general, and of one part of life in particular, normal and perverted, theory seemed to find no place in his work. No doubt it had its place and influence, in due position and degree, but it was subordinate and never obtruded. To-night I cannot escape from theory or from the compulsion of even obtruding it. True, times have changed. Speculation has grown, and hypothesis, as the scaffold for useful observation, has become necessary in a manner and to a degree of which the workers of half a century ago had perhaps no adequate conception.

In selecting the visual sensations that occur without external cause as the subject for this lecture, I hoped to be able to reduce to some order the numerous facts recorded in my case-books in connexion with epilepsy and migraine, and to do so with the help of that which has been discerned and described by others. But I have found among the facts some which seem to be so instructive in a special relation that I have felt compelled chiefly to limit myself to a small part of the subject. Even within this narrow range, instead of explaining, I find myself able merely to point out that which needs explanation, and this only in its salient outline, in the hope that others may be able to see more clearly from the standpoint to which they may attain, as steps are cut in the steep hill-side of fact. Thence a wider prospect and a true perspective may be obtained, as the winding path of daily work is ever bringing before the eye new views of that which has long been known and perhaps misknown. The facts with which I have to deal are those of everyday experience, and yet are only now and then presented to us in needful definiteness of form and precision of discernment. I can only hope to-night to indicate how the facts should be regarded. Unless some idea exists of what to look for, we shall see but little.

The difficulty of ascertaining the facts depends on their subjectivity. That which is to be discerned can be seen only through the vision of another. Moreover, this is the vision of the unreal; it is the sight of that which is not. Unreal as it is, to the subject it is, as a sensation, a profound reality that confuses the mind and may make even recollection painful. Hence the opportunities for ascertaining trustworthy facts are very rare, and when they come it is important that they should be made the most of. If that which I have to say to-night induces many others to seize some of the opportunities that abound, and to make known the facts they learn, I shall count my effort thoroughly successful.

As I have said, the visual sensations met with in the two diseases, epilepsy and migraine, are far too varied to be considered in detail in all their numerous forms. But they present one relation which transcends all others in interest, in difficulty, and in importance. This is the apparent relation of the sensations to the functions of the cerebral centres in which we must assume that they arise, and through which we must also assume conscious vision of external objects is achieved. In 1885 I put forward the opinion, which has been confirmed by all that I have since been able to perceive, that, in addition to the half-vision centre in the occipital lobe, demonstrated by Munk, the indications obtained by Ferrier are correct, and that there exists a higher visual centre in the region of the angular convolution, which immediately subserves the perception of visual impressions. As I then suggested, impressions seem to pass to this higher centre in each hemisphere from both half-vision centres in the occipital lobes, in such a way that in each higher centre both fields of vision are represented, but that of the opposite eye in greater degree; that the connexion between the two higher centres is very intimate; and that the function of the higher centre differs from the lower in two ways. First, it seems to present the mysterious feature that, while partial disease of the lower centre causes partial loss of the related half-field, which cannot be compensated, partial disease of the higher centre seems to lower the function of the whole in a way we cannot at present understand. Secondly, and perhaps associated with this, there is some capacity for the compensation of loss by the other hemisphere, especially in the lower animals. This may be one reason why the pathological evidence of this centre in man is so scanty, and another cause may be found in the fact that the centre is in the region of the blood-supply of two different arteries, and so is seldom entirely destroyed. The facts that suggest—indeed, I think, indicate—the existence of this centre in man I have repeatedly stated during the last ten years. In the strange hemianæsthesia of hysteria we have evidence of arrested action of all the other higher special sense

centres in one hemisphere. We never meet in this association with the hemianopia that results from disease of the lower centre in the posterior extremity of the hemisphere. Instead we have the "crossed amblyopia," as it is termed; peripheral vision is lost in both eyes, central vision persists in a small area in the opposite eye, and in a larger area in the eye of the same side. No trace is found of any relation to the half-fields. But hysteria is a by-word, and all facts, however definite, with which the name can be connected are disregarded by physiologists. Yet the same affection of vision occurs in organic disease. I have given an illustration of it,[1] as a lasting symptom, in a case in which it was caused, with hemiplegia, by a sudden lesion, probably hæmorrhage, in one hemisphere. A similar loss has been met with when the angular region was found diseased.[2] When hemianopia is caused by disease of the cerebral hemisphere it is common for a like contraction of the remaining half-fields to reproduce the same change, greater on the opposite side.[3] A careful scrutiny of pathological evidence makes it probable that in these cases the disease is in the white substance, interrupting the half-vision path and extending forward to the fibres beneath the higher centre or to its grey matter. These may seem meagre grounds for the assertion that here we have a higher visual centre, but they agree in a remarkable way with the experimental results obtained by Ferrier, and a large number of the facts of disease cannot otherwise be understood. A theory that explains is not necessarily true. But if a theory that affords an explanation which can be obtained in no other way, which theory has other, varied and quite independent evidence, it seems to me that we are justified in its assumption. I have to ask you to postulate these higher visual centres, for I can only describe the facts or at least suggest their significance by placing them in front of this hypothesis. I am compelled also to justify my request because these centres seem quite outside the limits of our present scientific physiology.

Note the necessary significance of "crossed amblyopia." With loss of the higher visual centre of the left hemisphere we have in the right eye vision only in a small central region; in the left eye sight remains in a larger central region. In each eye there is peripheral loss. The significance of this is that the vision that remains is subserved by the right higher centre acting alone. This subserves a large central region on the opposite side, a small central region on the same side, but, without the coöperation of the opposite centre, it cannot subserve peripheral vision in either eye. The facts are certain, and their meaning seems to me alike startling and unquestionable. It seems that in the central regions of the fields vision can be subserved by either hemisphere alone, in the peripheral parts by neither alone. It is as if the impulse from the periphery of each retina ultimately reached the higher centre of one side through the opposite visual centre, as if those from the peripheral region of each half-vision centre in the occipital lobe passed to the opposite hemisphere through the higher centre of the same side, and those for the central region passed directly from the half-vision centre to each higher centre. So that, for instance, the peripheral impressions of the right higher centre have to pass through the higher centre in the left eye, and the loss of this involves peripheral blindness on both sides. Whether this is so, or whether some reflected coöperation is essential, the facts show how extremely close is the functional relation of the two. In this higher visual centre we must assume the processes to occur on which the subjective visual sensations depend. From this conclusion I think there is no escape, and this may become apparent as we consider their features on this assumption. The more elaborate function of this centre may be connected with the instability which underlies these symptoms. They reveal not only how extremely close must be the connexion between the visual centres of the two hemispheres, but that, as regards some part of their functions, they must be regarded almost as one centre, as united in a manner more essential than that in which any other centres of the two hemispheres are conjoined. This is, indeed, not surprising when we consider how unique is the function of sight as subserved first by the two eyes, and secondly by the lower visual centres in which the half-fields are represented in so limited a manner. Only from the region of the fovea centralis do fibres pass to each occipital lobe. Only in a small region around the fixing point, varying in size in different persons, but always too small to be revealed by the ordinary perimeter, is vision subserved by each lower centre. But the whole of each field is in some way related to each higher centre. The subjective visual sensations present the function of these higher centres from another point of view, from that of their activity, and not of their loss. The ground is one on which we have to tread with caution, in which the danger of fallacious inference is great, and yet that which is seen must contain in it evidence of facts which can be discerned in no other way.

[1] Manual of Diseases of the Nervous System, vol. ii., second edition, Fig. 83 (first edition, Fig. 81).
[2] Ibid., Fig. 15 (first edition, Fig. 14).
[3] Ibid., Fig. 82 (first edition, Fig. 80).

THE VISUAL SPECTRA OF EPILEPSY.

The "warning" which occurs at the moment of the onset of an epileptic fit—the first effect on consciousness of the process of "discharge"—is often a visual sensation. This may be, or may not be, the first event. It may be preceded by some other sensory perception or it may be followed by some other, but it shows that the process of discharge occurs first or early in the visual centres. Such sensations are extremely varied, but they are, as a rule, constant in the same patient, and when they occur, consciousness is adequate to permit the memory to retain them. The simplest of these visual warnings are sudden flashes of light or colour, sparks or stars, often in rapid movement among themselves, apparently like the movement of water-beetles on a pond. Sometimes a large luminous object appears, which may move across the field, or seem to approach or to recede. There may be two such objects, rarely three, and they may be white or coloured. More elaborate sensations are figures of persons, faces, often distorted into grimaces; a figure may also move. Occasionally there is a vision of places or of some scene, even such as is quite beyond the possibility of past experience. Such elaborate sensations—"psycho-visual" as they may be termed—are often associated with definite mental states, which may be very curious. The warning in one patient was a definite picture of London in ruins and the river Thames emptied to receive the rubbish; that all the inhabitants had perished, and the patient stood alone in the scene of desolation. The associations of these visual sensations are noteworthy, but I must only mention the fact that the frequent associations are with other special sensations, especially with the sense of hearing, seldom with smell. The associated sensation is generally of the same degree of elaboration. A patient who sees figures will seem to hear words uttered by them, although the words are generally forgotten—an association which reminds us of the celebrated vision on which the fame of Lourdes arose. One curiously complex visual warning, experienced by the same patient through many years before every fit, I have described elsewhere, but it deserves mention. A sense of beating of the heart ascended the chest to the head and became audible as a pulsating sound; then two lights appeared before the eyes, which seemed to approach with jerks; they suddenly disappeared and were replaced by the figure of an old woman in a red cloak, who offered the patient something which had the smell of Tonquin beans, and then he always lost consciousness. The case is remarkable on account of the change of the sensation of simple pulsation to that of sound, and the association of the latter with a pulsating visual spectrum, the replacement of these by a highly complex spectrum, and the final termination with an olfactory sensation, probably elaborate. There is reason to think that the more pleasant subjective sensations of smell are more elaborate than the common disagreeable sensations. The jerky movement, definitely synchronous with the pulse, is not uncommon in such simple visual sensations, and seems to indicate that the process, in the disturbed centre of the brain, is modified by the mechanical influence of the arterial pulsations. I may point out also the interesting fact that the more elaborate sensation, the vision of the woman, followed the more simple one, the two lights. This sequence is more common than the opposite, although now and then an elaborate sensation is followed by one that is more simple. The sudden spontaneous activity, which we call "discharge" of the centre, may occur as a primary event, but it is often preceded by sudden arrest of function, by inhibition of the centre. It is one of many instances of the fact that the same functional derangement, in different degree, may cause cessation of action or increased action. In one case, suddenly all became dark, then there appeared a red light before the eyes, changing presently to green, and then consciousness was lost and the convulsion came on. In another, sight became dim and misty, then two round green lights appeared, compared to a penny at a distance of two feet,

which moved from side to side. It is very common for the first darkness to be the background for bright stars. Much less frequently stars or flashes of light are followed by loss of sight and darkness—that is, discharge is followed by inhibition.

COLOURS.

The colours seen in these epileptic sensations are generally either green, red, blue, or yellow; a reddish yellow is especially frequent and seems to be very much the colour commonly assumed to be that of flame. Now and then emphasis is laid on the bright golden character of the yellow. The transition of red to green just mentioned I have met with in two or three other cases. It is interesting, on account of the complementary character of the two colours and the fact that the transition is central; but we are not yet in a position to discern anything regarding the nature of the colour process in the centres. The subject is of extreme interest in connexion with the problems of colour vision, to the physical relations of which so much attention has been lately given. I believe that ultimately the study of the central phenomena will throw light upon the subject, possibly of supreme importance, but the time is not yet come. The perception of colour in the visual sensations which precede epilepsy presents to us one feature which must detain us for a short time, because it is equally obtrusive in the visual sensations of migraine which I shall have presently to describe. It is the fact that the subjective colour sensations seem to extend to the extreme periphery of the field. They are as distinct and frequent in the peripheral region as in the central region. I could give you many illustrations, but one will suffice. Green is the colour which is said to have the smallest colour field, its perception being often described as confined to the central region. But to one patient, before each fit, there appeared the vision of a green colour over the whole lower half of the combined fields, extending from side to side and down to the lowest part, as was clearly shown by his spontaneous description that "it was just as if he were standing in a field of grass."

PERIPHERAL COLOUR VISION.

Different as the arrangement of function in the centres is from that in the eyes, there must be a perfect reproduction of the function of the retinal fields in the higher centres. Although it is in altered form, whatever vision the periphery of the retina subserves, the parts of the visual centres related to the periphery must subserve the same vision in the same way, similar in character and in degree. The fact that the subjective sensations may present every colour in the peripheral field—even green, to which the retina seems least sensitive—brings before us the question of peripheral colour vision. The facts I am about to state have been well known for nearly twenty years, since Chodin[4] worked at peripheral colour vision in regard to saturation. They were described by Landolt, but they are not very familiar, and they are curiously inconsistent with the statements commonly made. It is often said that the field in which red can be seen is the central region, the limit of which crosses the outer horizontal radius at 45°. This limit is even spoken of as "the boundary of the field for red." But it is only the area in which red can be perceived on an object one centimetre square. The same statement in regard to a still smaller region is made regarding green. But with larger area of colour it is found that all the colour fields differ in extent very little from the fields for white. On the temporal side in each field red can be seen up to 90°. Taking first the red field, it is found that it depends in size simply on the size of the coloured object. In the outer horizontal radius that for the half-centimetre square is, I find, at 35°, and for a quarter-centimetre square at 25°. If we pass beyond the one centimetre limit, which is commonly figured as that of the field for red, we find that a red area two centimetres square is seen at 60°, three at 70°, four at 78°, five at about 82°, while the area of six centimetres square is seen up to the extreme edge of the field. Upwards, downwards, and on the nasal side of the field, in which the range of vision is so much more limited, the areal limits are closer together, so that on the inner horizontal radius the three-centimetre limit is at 40° and the six-centimetre area of red can be seen at 50°—that is, at the edge of the field for white. Every field is thus practically concentric with the field for white. In the case of blue and yellow still smaller areas suffice to permit the colour to be seen up to the edge of the field for white. Green alone seems to fall short of the edge of the white field by about 5°. I have spoken of areas of two or more centimetres square. But this is not accurate. At each distance from the centre at which the colour can be seen in an area of a certain dimension, the same in the radial direction and in the concentric direction, it can be seen equally well if the radial dimension is only two-thirds of the concentric dimension. As far as I have been able to ascertain, the peripheral colour vision is determined by area rather than by illumination, but I have found it difficult to get a sufficient saturation to bear strong illumination.

I have spoken of the mysterious way in which peripheral vision seems in the higher centres to be dependent on mutual coöperation, that in neither eye can peripheral vision occur unless the centres of both hemispheres are active, while in the central region there is vision in both eyes although only the higher centre in one hemisphere is active. This peculiar mutual influence of the centres is exemplified further by the colour fields. The field for every area is larger if both eyes are open. This seems natural so far as concerns the part of the two fields which overlap. But it is true also of the temporal part of each field in which the field is single. Binocular intensification extends into this part and extends into it in the same degree as in the part where the fields are double—for instance, in the outer (temporal) horizontal radius of the right field. In the single field red is seen in one centimetre square at 42°, in the double field at 60°, although the left field only extends as far as 56°. In a square of two centimetres red is seen in the single field at 62°, in the double field at 72°, and in a square of four centimetres in the single at 80°, while in the double field it can be perceived almost up to the edge at 90°. The fact that in the part of the fields in which each is single there is increased sensitiveness when both eyes act gives additional emphasis to the strange fact that, in this region, loss of one higher visual centre causes peripheral blindness. It shows how complete is the blending of function in the two centres. In this outer periphery vision is impossible unless both higher centres act, but where the rays of light fall on one retina only their effect is greater if the other eye is open—that is, if both centres are fully stimulated.

(To be continued.)

[4] Archiv für Ophthalmologie, Band xxiii. See also Landolt: a Manual of the Examination of the Eyes; and Swanzy: Diseases of the Eye, p. 19.

"RETURN" CASES OF SCARLET FEVER.

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A DEFINITION of the phrase as here used is scarcely necessary. It is intended simply to imply that when infection reappears in a household, after the return of one or more of the inmates from hospital, the two events are in some way connected, and the investigation of which this paper contains a summary was undertaken with the view of ascertaining, if possible, whether this connexion was capable of some definite explanation. It is usual to assume that this explanation is to be found either in the earlier patient or in his clothing; and while this, as a general statement, is sufficiently comprehensive, its application to the patient requires some consideration. In the first place, he may bear evidence of still being infectious; but the end of the period of infectivity is the termination of a pathological process, and there is some reason for believing that it may not coincide with the disappearance of the clinical signs which usually accompany its progress. In other words, the power to transmit infection would, in some instances, appear to attend a patient after recovery (?), and it shall be my endeavour afterwards to point out the conditions which tend to engender this power. Moreover, we have of late been made familiar with the phrase "recurring infectivity" as a clinical fact, of occasional occurrence at least, in cases of diphtheria, and the term would seem to be equally applicable to certain cases of scarlet fever. A third possible source of reinfection may lie in the household of the patient, but here it is to be remembered that the secondary cases are almost always resident at home, and unaffected, till the return of the hospital patient. It is true that articles of clothing which have been subjected to some process of disinfection, and have in consequence come to be regarded, it

may be erroneously, as innocuous, may lie unused, under cover, until preparation is being made for the patient's return home, and one cannot exclude this as a possible explanation in some cases. A word may be permitted in this place regarding the manner of dealing with patients and their clothing in Glasgow. During removal to hospital a patient usually wears his ordinary clothing, but it may be supplemented by a blanket as a wrap. Whatever he wears on admission is taken charge of by the hospital authorities and dealt with as afterwards described. After removal, the house from which he comes is visited, and all the clothing worn while sickening, and the bed and bedding used, are disinfected by the "sanitary" as distinguished from the "hospital" staff. A very large number of the cases of scarlet fever occurring in Glasgow are removed to hospital for treatment. In 1894 this proportion reached 74 per cent. of the cases notified. At the present time the older fever hospital of Glasgow, in Parliamentary-road, receives by far the greater number of these patients, and during the period under review this hospital was used exclusively for patients suffering from this disease. A large number also are treated at Belvidere, while those whose residence is in the recently annexed areas of Hillhead and Maryhill are treated at the Joint Hospital, Knightswood. It should be here noted that while the system of "sanitary" disinfection and washing is uniform in all cases, the clothing worn by patients on admission to Knightswood Hospital is dealt with in a manner somewhat different from that followed at Belvidere and Parliamentary-road Hospitals, while patients dismissed from Belvidere are subjected to a carefully designed system of bathing, in a separately constructed "clearing house," which has no equivalent in either of the other two hospitals. My observations were begun towards the end of 1893 and were continued till the spring of the present year, and during this period over 3700 scarlet fever patients were dismissed recovered. The method adopted in the inquiry was to note as it occurred every case arising in a household subsequently to, or shortly before, the return of an earlier one from hospital. A record was taken of the number of days intervening between the date of return of the one and the sickening of the other, and the length of residence in hospital of the former case. This case was also examined for the existence of desquamation, nasal or aural discharge, excoriations, &c.—in general, anything which could be regarded in the light of a lesion—and when such was found the ward journals in the hospitals were subsequently examined for a history of the case. At the time of occurrence inquiry was also made regarding the intercourse which had been permitted between the cases, whether they slept in the same bed or room, whether they played together or had their meals in common, and generally also regarding those demonstrations of affection which naturally accompany the return of any member of a household who has been absent for some time. In regard to clothing the inquiry was directed to ascertain what had been worn on going to hospital and what on returning; and how such clothing as had been worn at the time of sickening, but not on removal to hospital, had been disinfected, and whether it had, during the interval between disinfection and the return of the patient, been kept hanging loosely about the house, or under cover, as in a box or drawer. As might be expected, however, from the natural tendency of many people to discount the presence of infection in any articles of clothing which might be injured by disinfection, this line of inquiry was approached with the conviction that if the wearing of good clothing was coincident with the date of sickening—as might well happen when that occurred on a Sunday or a holiday—error would now and again arise from suppression of the fact that such clothing had been exposed to infection. The careful preservation of such articles in some receptacle against the time when their owner is to be discharged from hospita must be regarded, I think, as a likely explanation of such attacks, at least, as shortly precede the return home of an earlier case. Inquiry was also made as to the existence of any other extraneous source of infection, such as, for example, a case in a neighbouring house. My list comprises 118 cases collected as described. In this list there are, however, 19 which I shall afterwards deal with as "extra" cases, because several are not "hospital" return cases, although having points of interest bearing on the present inquiry, and some are duplicate cases occurring in the same house a day or so after a first re-sickening. These latter must of course be excluded in calculating the proportion which the re-lit centres of infection bear to the dismissals from hospital, so that the per cent. of "return" cases to dismissals becomes rather a statement of the number of houses in which infection reappeared in association with those dismissals. In calculating this per cent. I have taken the figures for 1894 because of the greater precision which this limitation affords. During that year 2593 persons were dismissed "well" from the three hospitals above mentioned, and reinfection appeared subsequently in 70 of the houses to which these patients returned, or in 2·6 per 100 dismissals. Of these dismissals 1535 were from Parliamentary-road Hospital, 901 from Belvidere Hospital, and 157 from Knightswood Hospital; and infection reappeared in 37 of the houses receiving patients from Parliamentary-road Hospital, in 22 houses receiving patients from Belvidere Hospital, and in 11 houses receiving patients from Knightswood Hospital. Otherwise stated, infection reappeared in 2·41 per 100 dismissals from Parliamentary-road Hospital, in 2·44 per 100 dismissals from Belvidere Hospital, and in 7·0 per 100 dismissals from Knightswood Hospital. Belvidere and Parliamentary-road Hospitals may therefore be taken to have practically the same proportion of reinfections associated with their dismissals, and in view of the difference which obtains in these hospitals in the method of dealing with the patient immediately prior to dismissal this correspondence is striking. Wherein this difference lies will be best apprehended if I here introduce a description of the process which Dr. Johnston, physician-superintendent of Belvidere and Parliamentary-road Hospitals, has been good enough to write for me. The description covers also the method of dealing with the clothing worn by patients on admission and dismissal. Dr. Johnston says:—

"1. *Patient.*—(*a*) The minimum period of residence for scarlatinal convalescents is fixed at eight weeks. Only between Nov. 7th, 1892, and Jan. 4th, 1893, was it reduced, owing to unusual pressure, to six weeks. (*b*) The criteria for dismissal are that patients are in good general health. All the cutis must have separated and the surface of the body be quite intact. There must be absence of discharge from ears or mucous surfaces, and the urine must be clear. Cases have sometimes to be dismissed with chronic ear discharge or albuminuria, but never are so dismissed under three months. (*c*) On dismissal patient is taken to a special series of rooms (discharging-rooms). He enters and strips in the first, has a bath with carbolic soap in the second, passes along to the third, where he dresses in clean, non-infected clothes, and thence he is shown outside the gates of the hospital.

"2. *Clothing.*—The clothing worn on admission by a patient is removed and sent to a special laundry within the hospital grounds, where it is thoroughly cleansed by washing and packed away in a bag. These bags are placed on racks in a large, airy store-room, specially built and set apart for the purpose, and carefully preserved from contamination. Immediately before patient's dismissal they are sent to the sanitary washhouse, where they are exposed to superheated steam in a 'Washington Lyon' apparatus. Clothing brought to the hospital to be worn on dismissal is detained either in the 'third' room of the discharging series or in the store-room.

"*Note.*—A nurse from the patient's ward accompanies him to the discharging-rooms and superintends the disinfecting process of bathing &c. The nurse puts on a clean cotton wrapper over her uniform for the occasion."

The foregoing description applies to Belvidere Hospital.

"At Parliamentary-road Hospital there are no discharging-rooms, and the ward bath-rooms (which are to some extent liable to harbour infection) have to be used. In all other respects the practice, however, is the same as at Belvidere."

With regard to the methods followed at Knightswood Hospital, Dr. Iain Clerk, the physician-superintendent, has also favoured me with the following description:—

"1. *Patient.*—(*a*) The average residence last year was fifty-two days. No case is dismissed under seven weeks, dating from the first day of illness. The criteria for dismissal are (*b*) completion of desquamation, special attention being directed to the feet, hands, and hairy (?) scalp. An examination of patient is made on the day before that on which he is to be dismissed. Patients with ear or nose discharges are not dismissed until recovered. (*c*) Patient is bathed in a bath connected with the ward before being dressed for dismissal, and is dressed in the nurses' room—both bath and nurses room being entered from the corridor leading to the ward.

"2. *Clothing.*—Whatever is worn on admission is fumigated with sulphur, washed, and kept in a store (at the offices) until the day of dismissal. Clothing sent in preparatory to

dismissal is simply stored. It is often brought on the morning of dismissal day.

"*Note.*—An occasional case where chronic ear discharge was present before the attack of scarlet fever may have been dismissed 'improved,' but not cured. The patients are dressed by the ward nurses while wearing their ordinary ward uniform."

In the following table the secondary sickness is stated as occurring on the second, third ..... tenth, eleventh days after the return of an earlier case. Deducting the 19 cases formerly mentioned this interval is stated for the remaining 99.

TABLE I.—*Showing Interval between Date of Dismissal and Sickening of Secondary Cases.*

First week.		Second week.		Third week.		Fourth week.	
Days after.	Number sickening.	Days after.	Number sickening.	Days after.	Number sickening.	Days after.	Number sickening.
1	—	8	10	15	2‡	—	—
2	6	9	2	16	1	—	—
3	13	10	9†	17	1	—	—
4	15*	11	3	18	2	—	—
5	10	12	1	19	1§	—	—
6	10	13	4	20	1	—	—
7	7	14	—	21	—	23	1
—	61	—	29	—	8	—	1

* In one case a downstairs neighbour had a case of scarlet fever at home.

† One boy had played with a more recent dismissal from hospital (seven days) who lived at hand.

‡ (Fifteenth day.) In one of these cases—not associated with lesion—the secondary case was sent from home for eight days at time of return of earlier one. The clothing was kept in a box.

§ Earlier cases here on leaving hospital went to the country for thirteen days. All new clothes.

Sixty-one cases are here shown to have sickened within one week of the return of an earlier case from hospital, and 8 in the third week thereafter, but it will be observed in the note to the table that one attack beginning on the fifteenth and another on the nineteenth day after dismissal really occurred on the seventh and sixth days respectively after exposure, and if we transfer these to the first week we have 93 per cent. of the reinfections occurring within a fortnight after dismissal. It may be protested that to credit a dismissal from hospital with a sickening occurring in the third week thereafter is inconsistent with the knowledge which we have, derived from other sources, of the incubation period of scarlet fever, and that to include one sickening after an interval of twenty-eight days is indefensible. In the investigation, however, I practically took every case coming to my knowledge where infection reappeared in a household, and when it became evident that the recurrence of lesions subsequent to dismissal from hospital had at least a time association with cases sickening as late as the fifteenth and sixteenth days, it was difficult to know when absolutely to exclude others where the connexion was not so apparent. To such cases where lesions reappear I am disposed to think we should restrict the term "recurring infectivity," for there are others where no lesion is apparent, but where there is ample ground for the conjecture that the power of transmitting infection is retained after the lesions have ceased.

By far the most obvious connexion between the primary and secondary cases has reference to the presence of desquamation or other physical and easily recognisable lesion on the persons of those discharged from hospital. I do not mean cases where, for well-defined reasons, patients are deliberately dismissed from hospital during the period of desquamation or the currency of any of those lesions which are admittedly a sequel to the disease, but where the opposite policy prevails and where every precaution is taken that no patient shall be dismissed until the last patch of skin has separated and the patient otherwise has returned to health. This, modified by the existence of a chronic lesion alone, was the policy which controlled the discharge from hospital of the cases under examination. It is interesting, therefore, to observe that in connexion with the reappearance of the disease in 19 households there was lesion of some kind present on the first patient, not, as we shall see, at the time of dismissal, but at the time when the secondary case sickened. There is only one exception to this in the 19 cases here referred to. The form of lesion present may be classified as follows: in 8 of the patients there was desquamation, and a like number presented sores (excoriations, eczematous patches, &c.) on the lips, ears, or head; in 5 there was a discharge from the ear; 2 had a discharge from the nose; and 1 had sore-throat. It is of importance to examine these cases further with reference to the course followed by the disease during their residence in hospital, and I have accordingly gone over these records in the ward journals, and in the following table (Table 2) I have introduced such notes therefrom as tend to throw any light on the lesions which were present after their return home. In the table the cases are arranged according to the interval which elapsed between the dismissal of the primary and sickening of the secondary case. Thirteen were from Belvidere and 5 from Parliamentary-road Hospitals.

Table II. is largely self-explanatory, and the significance of the morbid conditions found present when the secondary cases arose depends, as I have said, on the fact that, with the exception noted in the table, these were not present at the medical examination prior to dismissal from hospital. It is easy to understand the recurrence of a discharge from the ear when it has once been invaded by suppurative inflammation; but the suggestion in this table distinctly is that it may also be associated with a recurrence of the specific infectivity which at first gave it origin. Again, evidence of desquamation on some part of the body was present in nearly half of the number in which lesion was discovered, and it is impossible to regard its occurrence at the time of the secondary sickening only in the light of a coincidence. Before disputing the connexion, indeed, we should first of all endeavour to realise the effect of the altered conditions which attend a patient on dismissal from hospital. In the Glasgow hospitals there is ample scope for the activity of children who are sufficiently advanced in convalescence to indulge in outdoor play. But otherwise they live under a strict discipline; their meals are regulated, absolute cleanliness is a necessity, and strict attention is paid to the performance of the physiological functions. It is idle to speculate whether, had the cases at present under consideration remained under this *régime*, the desquamation would have occurred; I am inclined to think it would not. This much, however, is tolerably certain: that on return to their homes the method of their lives is changed—undue strain is thrown on one or other of the assimilative or excretory functions, the physiological balance is for the time being destroyed, and an error in dietary, resulting in disordered digestion, may find expression in the skin relapsing into a habit which it had but lately given over. Nineteen of the 99 cases under discussion presented some such lesion as is here described—that is, 19 per cent., or nearly one-fifth of the whole number associated with secondary cases, may be regarded as examples of "recurring infectivity."

Apart from the correspondence which exists between the proportion which the total yearly number of reimplanted cases bears to the dismissals both from Belvidere and Parliamentary-road Hospitals, suggestive differences appear when the monthly incidence of these cases is considered. In Table III. are given, in monthly periods—(1) the average daily number under treatment; (2) the total dismissals; (3) the number of these associated with cases of reimplanted infection; and (4) the percentage which these last bear to the dismissals. The first feature in the table attracting attention is the constancy with which the dismissals from Parliamentary-road Hospital are associated with return cases, and the break in this continuity from May till August in connexion with those dismissed from Belvidere Hospital. To borrow a term, "return" cases from Parliamentary-road Hospital dismissals assume a certain "chronicity," while those from Belvidere Hospital are "intermittent." Along with this it will also be noticed that the average monthly numbers under treatment at Parliamentary-road Hospital are maintained with a fair amount of constancy, while the Belvidere Hospital numbers are largely diminished during the summer months, and one asks whether there is more than an accidental association between the two. Obviously, it is to be remembered that continued strain either on the accommodation or on the management of a ward will tend to produce impaired efficiency of the work, and that "return" cases associated with dismissals under these circumstances may possibly be the result of conditions which have been overlooked. This would lead us, however, to expect that the largest proportion of

TABLE II.—*Showing Cases where Lesion existed.*

Days intervening between return and sickening.	Day of illness on which first case was discharged.	Nature and Incidence of Lesion.				Sleeping accommodation.		Remarks.
		Desquamation.	Discharge. Ear.	Discharge. Nose.	Other lesions on lips, head, or face.	Same bed.	Same room.	
4	59	—	—	—	Rough patch on face.	1	—	—
4	68	—	1	—	Excoriation behind ear	—	—	Discharge from ear and nephritis in hospital, but had ceased prior to dismissal.
4	64	—	—	—	Excoriation at nostrils	—	—	Illness normal in hospital.
4	62	—	—	1	Rough patch above right ear	—	—	Illness normal in hospital.
5	57	Hands	—	—	—	—	—	—
5	58	—	—	—	—	—	—	Complained of sore-throat on day after dismissal.
6	65	Elbow	—	—	—	—	1	—
7	55	Toes	—	—	—	—	—	—
8	57	1	—	—	—	1	—	—
8	63	—	—	—	Excoriation on lips	1	—	—
8	60	Hands	—	—	—	1	—	—
8	58	Tips of fingers	—	—	—	—	1	—
8	88	—	1	1	—	1	—	Hæmaturia cause of detention; nasal discharge ceased on July 8th; mastoid abscess on Aug. 13th; was dismissed on Sept. 5th.
9	109	—	1	—	Excoriation behind ear	1	—	No ear affection in hospital, but obstinate enlargement of cervical glands.
10	80	—	1	—	—	1	—	First child went for four days to friend's house. Affection of ear in hospital, but discharge had ceased prior to dismissal.
11	52 & 57	Feet	—	—	—	1	—	—
13	56	Body	—	—	—	—	—	First patient left hospital on Oct. 13th and went to friend's house in country; brother joined him there on the 20th, and sickened on the 26th.
15	60	—	—	—	Excoriation of nostrils.	—	—	Lesion present in hospital; mother only allowed to take her home on the express promise that she was not to associate with other children.
16	81	—	1	—	Excoriation on upper lip	1	—	New clothing only worn on return; detained owing to kidney affection; no discharge from ear while in hospital; had eruption on face ending in crusts, but this had been recovered from before dismissal.

TABLE III.—*Showing average daily number under treatment in each month; total monthly dismissals; number of houses in which infection reappeared and percentage of these to dismissals.*

—	Belvidere Hospital.				Parliamentary-road Hospital.			
	Average daily number under treatment.	Dismissals.	Number of houses where infection reappeared.	Percentage of return cases to dismissals.	Average daily number under treatment.	Dismissals.	Number of houses where infection reappeared.	Percentage of return cases to dismissals.
1894.								
January	193	119	6	5·0	249	129	6	4·6
February	174	91	5	5·4	261	118	4	3·3
March	126	96	5	5·2	249	160	4	2·5
April	62	54	1	1·8	217	109	4	3·6
May	33	28	—	—	211	122	2	1·6
June	28	20	—	—	225	124	4	3·2
July	26	10	—	—	211	105	2	1·8
August	47	19	—	—	188	117	4	3·4
September	110	29	2	6·8	279	97	4	4·1
October	304	50	1	2·0	297	143	—	—
November	411	169	1	0·5	290	148	2	1·3
December	302	217	1	0·4	288	163	1	0·6
	—	901	22	2·44	—	1535	37	2·41

return cases, and especially those displaying "lesions," would attend dismissals when this strain is most acute, as at the beginning of an epidemic prevalence of the disease. It would, therefore, usually be in the fall of the year that this proportion should be increased, and yet a comparison of all the monthly figures between September and December shows that this is not the case. An excellent illustration, indeed, of this autumnal pressure is afforded by the condition of Parliamentary-road Hospital in the early part of October last year. On the 10th of that month in the twelve wards then in use, and which on a 1250 cubic feet allowance for each patient had only accommodation for 266 patients, there were 316—that is, there was at this date undoubted and excessive strain both on the management and on the bed space; and yet October is the only month in which no return case is recorded against this hospital, while in November these reached only 1·3 per cent., and in December there was only 1 return case in 163 dismissals. In Belvidere Hospital also, as the table shows, the rapid increase in the numbers under treatment in the later months of the year is not accompanied by an increase in the proportion of return cases. Nor is there any evidence apparent of an increased tendency in "return" cases to associate themselves unduly with the season of large dismissals, and the evidence is altogether adverse to the view that the return cases result either from relaxed stringency in dismissal or from an overcrowded condition of the wards themselves when this is of a temporary character. It will strike one, however, on examining the table that the increase in the numbers under treatment in Parliamentary-road Hospital during the months September to December is not comparable with what took place in Belvidere Hospital during the same period. I have

already stated that during 1894 Parliamentary-road Hospital was used exclusively for the treatment of scarlet fever, and this contrast but serves to show that the available accommodation therein was largely taken advantage of throughout the year, and that when the autumnal rise took place accommodation for it had chiefly to be found elsewhere. In Parliamentary-road Hospital, on a computation of 2000 cubic feet per bed, there is accommodation for 193 beds, while if only 1500 cubic feet per bed are allowed 267 can be accommodated. It is customary to regard children under ten years of age as requiring only one-half the cubic space of adults, but if we allow 1250 cubic feet per bed there is accommodation for 322. In the first nine months of the year only twelve wards were in use in Parliamentary-road Hospital, and on a 1500 cubic feet allowance per bed the accommodation in these is 221. The average daily number under treatment, it will be seen, was frequently much in excess of this and rarely fell much below it. There is, however, a manifest risk in pressing this comparison on averages alone, because mere unequal distribution of patients among the wards might, it can be readily understood, create overcrowding in a ward here and there, while the total number in hospital might be much under the accommodation, and the comparatively small number of return cases at our disposal precludes any effort to follow backwards each dismissal into relationship with the numbers who were treated simultaneously with him in individual wards. In their present form, however, these numbers, I believe, suggest that when wards are continuously worked very nearly up to their maximum accommodation, more especially when this accommodation is based on a low estimate of the cubic space per head required for children, there is a tendency in the dismissals to become associated with return cases, and that the cause thereof would seem to lie in the air of the ward becoming surcharged with the products of scarlatinal elimination. Other results of this we are already, indeed, familiar with. Dr. Sweeting some years ago showed that the aggregation of acute cases in wards led to increased frequency of albuminuria; and there is, moreover, the well-recognised risk that small-pox will attack the population in the immediate neighbourhood of a hospital when the wards are worked at their maximum accommodation and the air has acquired a property which is well expressed by the phrase "explosive intensity." In the present circumstances it would appear that, apart from the possible return of readily recognisable conditions such as desquamation &c. after dismissal, there is a constitutional effect produced which renders the discharged convalescent a danger to susceptible persons who may be brought into close contact with him. That this results from saturation of the system is, I think, clear; but whether it is due simply to delayed elimination, or to the constant breathing of a saturated atmosphere by the convalescent, is matter for conjecture. In the latter case one would expect that nurses would occasionally be the means of carrying infection outside a hospital, and yet evidence on this point, save where clothing has been the medium of conveyance, is wanting. From the analogy of diphtheria it might be expected that an unrecognised retention of infection may take place in the nares or fauces, or even further down the respiratory tract, and proceeding on this assumption, some effort was made to have the naso-pharyngeal cavities of convalescents douched with a boracic acid lotion on dismissal. These observations were, however, too incomplete for any deduction, and, moreover, the occasional recurrence of desquamation apparently points to a much more general retention in the system than any such localisation would explain.

Sleeping accommodation.—It is from this aspect, therefore, that a patient dismissed from a scarlet fever ward may carry with him elements of risk to the susceptible, that an investigation of all such acts as bring them into contact becomes important. I have previously stated that part of the investigation had in view the discovery of the sleeping accommodation both of the dismissed cases and of the cases sickening subsequent to their return from hospital, as well as of any other incident in domestic intercourse which might bring them into contact. The record of the sleeping accommodation shows that of the 61 sickening in the first week 17 occupied the same bed, 21 slept in the same room, and 23 slept in different rooms. Of those sickening in the second week (29 in number) 10 slept in the same bed, 7 in the same room, and 12 in another; while in the third week 3 occupied the same bed, 2 the same room, and 3 slept in separate rooms. In almost every instance, also, it is noted that the patients either played or had their meals together, and there are few in which contact of one sort or other could not be definitely ascertained.

Clothing.—For reasons already stated this analysis is unsatisfactory, and there is the additional difficulty which arises from the almost hopeless confusion of new with old clothing, as most children leave hospital in clothing which is partly new and partly old. When a patient goes to hospital fully clothed, as is frequently the case, his clothing after disinfection may be sufficient for him when leaving. On the other hand, new clothing or, as most often happens, some new and some old articles of clothing are sent by the friends in preparation for the dismissal. Of the 99 patients 68 left hospital in clothing wholly or partly new—that is, 31 had no new clothing whatever in which to return home; 51 returned wholly or partly clothed with the articles worn by them on admission and retained in hospital; while 48 wore articles which had been kept at home after disinfection by the sanitary department. To these 48 cases most interest attaches, and I find that in 47 this disinfection was carried out by removal of all or part of the clothing to the sanitary washhouse, while in 11 cases articles were also fumigated at home—that is, in only one house had there been nothing disinfected at the sanitary washhouse. As to the manner in which those articles kept at home had been so kept, and chiefly having in view the place of their retention, as in boxes or drawers, or hanging on nails behind doors or otherwise, I find that in 17 cases the clothing was hanging so exposed, while in 29 it was under cover. Apart from the greater proportion of cases associated with clothing kept under cover, there is nothing in the analysis of the clothing otherwise which helps to explain the occurrence of the secondary cases.

EXTRA CASES.

Several of the additional cases on my list fall into the two following groups, which are of some interest.

Group 1.—This group illustrates, I believe, reinfection resulting from overlooked or improperly disinfected clothing. In one family 3 children sickened on the following dates: March 20th and 23rd, and April 2nd. On March 23rd the first two that sickened went to hospital, and the third case, a boy, went to stay with friends, returning home on March 29th. He sickened four days thereafter. While with his friends he wore a new suit of clothing, but on returning to his own home on the 29th he had on clothing which he had been wearing while playing with the others while they were sickening and which had been fumigated at home, the underclothing being washed. In another instance a boy aged two years sickened on the day preceding the return of his brother from hospital. Some old clothes had been looked out in anticipation of the first boy's return home. In yet another case a boy aged two years sickened on the day of his brother's return. The clothing here had been kept at home, some in a drawer, other articles hanging loosely. The last instance is that of a boy who sickened a few hours before the return of his brother.

Group 2.—This group shows that the risk to children residing in a house in which scarlet fever is being treated is largely intensified just at the time when disinfection is being carried out. This is probably sometimes owing to the mechanical displacement of dust while the process of cleaning is going on. In one family the first child to sicken was nursed at home, and the house was disinfected on April 26th. On April 29th one child sickened, followed by two others on May 2nd. These children had been at home during the whole time of the illness of the first case. In another instance the first case was treated at home. After recovery the house and clothing were disinfected, on Jan. 29th. The patient and another boy slept together the same night, and this boy sickened on Feb. 3rd. In a family in which an earlier case was treated at home the house was disinfected on March 20th. One boy, who had been all the time in the house, and another who returned on the 24th from a friend's house sickened on the 26th.

CONCLUSIONS.

1. *The doubtful value of soap and water.*—We have already seen that in Belvidere Hospital the bath on dismissal is taken in a completely detached building and that the toilette is completed in a room on the further side of the bath from the undressing one. In Parliamentary-road Hospital this is done in the ward bathroom. Notwithstanding this, the percentage of return cases is fractionally

greater in connexion with dismissals from Belvidere Hospital than with those from Parliamentary-road Hospital. Theoretically the Belvidere Hospital results should be much better than those in the other hospital, but in the period under observation it has not been so, and, although wider observation might correct the impression, the assumed advantage of the separate system of bathing is not at all apparent in the present investigation; indeed, it raises a doubt whether the *nimbus* of infection which attends a convalescent scarlet fever patient, even beyond the gates of the hospital, is capable of removal by soap and water at all.

2. *Reappearance of desquamation and other lesions.*—In a few cases certain lesions—chiefly desquamation and discharges from the ear and nose—will recur. In the present investigation evidence thereof was present in 19 per cent. of the dismissals associated with return cases. This recurrence would appear to be dependent on the altered conditions which surround patients on their dismissal from hospital.

3. *Influence of overcrowded wards.*—In the majority of dismissals associated with return cases there is no visible lesion, and the endeavour to impugn overlooked or insufficiently disinfected clothing is rarely satisfactory. But there is a tendency in return cases to associate themselves with dismissals from wards where the beds are kept well occupied, and as a very large proportion of scarlet fever patients are children there is some reason to question the accuracy of our present estimate of the smaller cubic space required for them. This could only be finally established by concerted observation of individual wards extending over a long period. From a collective measurement of the ward space the average monthly numbers under treatment in Parliamentary-road Hospital for nine months had an allowance per head ranging between 1250 and 1500 cubic feet, and it is doubtful if at any time the numbers under treatment were within the estimated accommodation at 2000 cubic feet per head. Continued occupancy on a restricted estimate of the requirements, rather than acute but temporary overcrowding, would appear to tend to produce the condition from which many return cases arise.

4. *Interval after dismissal within which the return cases occur.*—Ninety-three per cent. of these are shown to have occurred within fourteen days, and in every case there was community of life either in sleeping or while at meals or play. As a practical instruction to parents the lesson is plain. Every effort should be made to prevent commingling of the recently recovered with healthy children. *The restriction placed on their sleeping together should be absolute.* Where, moreover, children are treated at home, and the isolation has been successful, special care should be taken of other children during the period of disinfection. All this would seem to point broadly to the necessity for convalescent homes being established as a resting place between the hospital and the patient's home, so that, if the expression be permitted, the system might be washed by the constant breathing of untainted air. But here, again, there would finally arise a scarlet fever laden atmosphere, and if my impression of the effect of this is correct, we shall avoid the consequences rather by regarding the 2000 cubic feet per patient, or its equivalent in air-supply, as an irreducible minimum irrespectively of the age of the patient. I have purposely omitted to compare the higher percentage of return cases associated with dismissals from Knightswood Hospital because the numbers are small, but it will not have escaped notice that patients' clothing is not here exposed to steam disinfection, as in the other hospitals.

Sanitary Chambers, Glasgow.

CASES OF LIVER AND GALL-DUCT SURGERY.

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(*Continued from p. 1507.*)

CASE 5. *Operation for hydatids in a child five and a half years old.*—This case was that of a child five and a half years of age, whose father's father had died from cancer and whose mother's sister had died from an internal tumour after middle life. The child was one of six—two older and three younger, all being very healthy and strong. A lump in the upper part of the patient's abdomen had been noticed for two years. It was gradually increasing in size and seemed to be the cause of attacks of pain by which the child was occasionally seized. She was under the care of Mr. Soffe of Harling, in Norfolk, and Dr. Benjafield of Lower Edmonton had seen her with him. As the diagnosis was obscure, Dr. Benjafield brought the patient to consult Mr. Knowsley Thornton, who expressed the opinion that the swelling was a hydatid tumour, and it was arranged that I should operate. When I saw the child there was a tense rounded prominence on the front of the liver, measuring about two inches in diameter, and its central part being behind the upper portion of the right rectus muscle. It exhibited a distinct hydatid thrill on percussion. The outline of the liver dulness was not altered, but it was rather lower than is usual even in a child. The patient was the daughter of a farmer who kept and bred dogs, and this child was particularly fond of them, and was especially pleased when playing with the puppies, which are often infested with tapeworms. The child was brought to lodgings near my house, and on April 21st, 1892, assisted by Dr. Benjafield, I cut down upon the swelling, opened a hydatid about the size of an orange, and removed the lining capsule and the daughter cysts. I found that there was a slightly smaller cyst above and close to the first. This was opened and cleaned out through the cavity of the first. On examining the parts around I found a large number of small growths scattered apparently irregularly over the peritoneum. They were about the size of hazel nuts, and I supposed them to be hydatid cysts. Three of them were very slightly attached to the omentum and were removed. I did not cut into these growths for some months, and when I did I found that they were lymphatic glands. They were very large glands, even for a child, and I was then under the impression that lymphatic glands were not to be found in the omentum. I was, of course, prepared to find hydatid cysts in the subperitoneal connective tissue by the conditions I had observed in the case last related. The opening in the liver was secured to the abdominal incision and the sacs were drained by rubber tubing. During convalescence there was little trouble except from the fractiousness of a somewhat spoilt child. The temperature, taken in the groin, and the pulse rose respectively to 102·6° F. and 120 on the second day after the operation. By the end of a week they were down to 97·6° and 96. On the ninth day the temperature rose to 103·2° and the pulse to 120 without any cause that I could discover. The drainage-tubes had been removed, washed, and reinserted some days before, and the bowels had also been moved freely before this time. By the tenth morning the temperature was again down to 97·6°, the pulse to 96, and a temperature of 99° was the highest recorded after this until the child had gone home. The drainage-tubes were gradually shortened, and the patient left London five weeks after the operation, on May 25th. The tube was then about an inch long, and it was finally removed a week later, but the wound did not completely heal till the beginning of August. By this time the child had grown much stronger and stouter, but a short time after the wound healed she complained of much pain in the abdomen and of feeling sick. There was some swelling round the scar, and the abdomen was very hard, but there was little if any tympanites. The patient vomited at times, was disinclined for food and lost flesh, and her temperature rose as high as 102°. Dr. Benjafield saw her with Mr. Soffe, and opium and belladonna were administered, with hot applications locally. On Sept. 13th Dr. Benjafield reported a steady fall of temperature, relief of pain, and improvement of appetite. The attack passed off without further trouble, the patient soon grew fat and strong again, and she has had no trouble since. Lately, two years and ten months after the operation, the child's mother wrote that she is "perfectly well and strong, and never has an ache or a pain." The cause of the attack of fever and pain four months after the operation in this case is obscure. I am inclined to think that as the child grew stronger the adhesions of the liver to the abdominal wall became gradually weaker by the constant movements of the parts on each other, and that the liver finally broke loose by a rapid rupture of the remaining adhesions. If this explanation is correct the child's liver is probably as free now as if there had been no operation.

CASE 6. *Operation for 789 stones in the gall-bladder.*—The first patient on whom I operated for gall-stones had consulted Dr. Stephen Mackenzie and Mr. Knowsley Thornton,

both of whom had diagnosed the presence of calculi and had recommended operative treatment. The patient was admitted to the Samaritan Free Hospital under my care on June 20th, 1892. She was a healthy, strong woman fifty-eight years of age and had suffered from frequently recurring attacks of pain in the region of the gall-bladder for three years. These attacks began with a very severe one, lasting a week, but not accompanied by sickness or jaundice. A year later, in July, 1890, there was another severe attack, with sickness, jaundice, and clay-coloured stools. The condition of the urine was not noted. This attack ceased suddenly, and after it two small calculi were passed by stool. The patient was free from pain for some months, and then had frequent slight attacks with varying intervals. In February, 1892, she had intense pain for a day and a night, ending, as most of the attacks had done, suddenly. After this the patient never felt well, having always a sense of discomfort and often a dull aching in the hepatic region. Jaundice had only been present on one occasion. There was nothing that seemed to bear on the patient's condition in her family history. She came of a healthy stock, and except for the conditions described and for constipation her own health was excellent. On examination by inspection and by percussion there was nothing abnormal in the abdomen, and by palpation I could not detect any enlargement of the gall-bladder, but in its situation there was some tenderness which varied from time to time, being sometimes diffused over a considerable area, and sometimes hardly present at all. There was always one tender spot on deep palpation, and I judged that this was about the situation of the common bile-duct or cystic duct. The patient wished to go to visit a son in a part of Canada where she would be out of the way of medical assistance, and this was taken into consideration in advising her to submit to operation. On July 12th, 1892, I cut down upon the gall-bladder and found it enlarged but flaccid. On grasping it between my fingers I could bring its opposite sides together, and here and there I could feel and catch hold of a small stone. The impression I got was that there were very few calculi, but when I had drawn off about an ounce of bile by means of an aspirator I found that there was a very large number of stones in the bladder. I made an incision in the fundus and cleared out the contents of the gall-bladder by means of forceps, a lithotomy scoop, and sponges. The opening in the gall-bladder was fixed by silk sutures to the abdominal wound so as to make a fistula. The rest of the incision was secured in the usual way, and the gall-bladder was drained by means of a rubber tube. Of course, great care was taken to prevent fouling of the peritoneum. There were 789 stones collected and counted. The largest was broken. It measured about three-quarters of an inch in its longest diameter, and was of irregularly rounded shape. The greater part of the stones were smaller than a split pea, many were smaller than hemp seeds, and the total bulk in fluid measure when they were dried and well shaken down was a little over an ounce. Besides those counted there were innumerable very small calculi which came freely through the aspirating needle and were seen as mere specks in the bile. Convalescence was very smooth. The temperature rose to 101° F. before midnight of the day of operation, and it was never above 100° in the vagina after the second day. The highest pulse was 80. There was at first a copious discharge of bile, but after a fortnight it diminished greatly. The tube was removed on the twenty-fifth day. There was very little discharge after this, and the patient went home a month after the operation; but it was about three weeks longer before the wound finally healed. The patient gradually regained her strength. I last saw her at the end of August, 1893, thirteen months after the operation. She was then about to start for Canada, having been detained by the illness and death of a son, which had entailed on her much work and worry, but there had been no recurrence of gall-stone symptoms.

CASE 7. *Operation for gall-stones.*—The next case was that of one of Mr. Alban Doran's patients, but he has kindly permitted me to record it here, as I had charge of the case and performed an operation on the patient during his temporary absence. "A woman aged forty-two years, a widow, came under my care at the Samaritan Free Hospital in October, 1893. She was a laundress, tall and once strong. On Aug. 4th, 1893, she lifted an unusually heavy basket of linen. Three days later she was seized with abdominal pains, vomiting, and sweating. There was no jaundice. After resting three weeks in bed she went to work. Early in September another attack of pain came on, without sickness. Dr. Nias and Mr. Arathoon attended her at the Marylebone General Dispensary. She recovered from the pain, and I saw her on Oct. 10th. There was a swelling in the region of the gall-bladder. On Oct. 14th a severe attack of pain occurred. On the 19th the patient was admitted. An attack occurred on Oct. 22nd. The swelling grew larger, and the skin over it became reddened. In a few days the pain went away, but the redness increased and the integuments were œdematous. I suspected obstruction of the gall-ducts. Mr. Knowsley Thornton, who kindly examined the patient, was of a similar opinion, though he thought that possibly the swelling might be an inflamed hydatid cyst. On Nov. 7th I, assisted by Mr. Malcolm, made an exploratory incision along the outer border of the right rectus over the middle of the swelling. I found under the muscular layers an irregular cavity containing pus, clots, and shreds of broken-down tissue. There was hardness behind the cavity. A pocket trocar and cannula was thrust into the hard surface, but nothing oozed out nor did the trocar touch anything that felt like a calculus. I then believed that the cavity might represent an abscess in the abdominal walls, developed early in August after a bruise from a heavy clothes-basket. I washed out the cavity with iodine water and drained it. I did so, believing that if the disease was simple abscess it would thus be cured; if it were more than abscess further operation could be more safely undertaken when the cavity was rendered aseptic. For a few days the patient seemed to be better. I then, on account of severe indisposition, left her in Mr. Malcolm's charge."[1] At this time the patient was not jaundiced. The abscess gradually contracted until only a sinus remained, but this showed no tendency to heal, and a thin mucous fluid oozed up from the bottom of the wound. On examining the parts towards the end of November I discovered that I could pass a probe through the wound into the gall-bladder, which was evidently full of stones. It was arranged that I should remove them, and on Dec. 2nd I enlarged the opening upwards and extracted a number of stones, but, when I had removed all I could find, no bile escaped. It was evident that if I did nothing more the secretion from the gall-bladder would prevent the closing of the fistula, and but little, if any, good would result from the operation. I therefore made a free incision upwards and downwards about three and a half inches long, opening the peritoneum, separating the adhesions of the bladder to the abdominal wall, and cutting out the track of the fistula. It was still impossible to handle the gall-bladder because the omentum and transverse colon were adherent to it and to the lower surface of the liver. These adhesions were also separated until I could manipulate the gall-bladder freely. By means of the fingers outside the bladder, and a finger or instrument in it, I found and extracted some more stones, making 134 in all. The smallest of these was about a quarter of an inch in its longest diameter; most of them were rather larger than this, and three or four measured half an inch across; one large one was broken. Still no bile escaped, and although I explored thoroughly all the under surface of the liver and the parts along the course of the ducts I could not find any other stones. I was, therefore, reluctantly compelled to close the wound, the gall-bladder being fixed and drained as in the previous case. In this instance I also inserted a glass drainage-tube into the right loin pouch of the peritoneal cavity to remove quickly any discharge from the divided adhesions. Very little serum escaped through this tube, and it was removed forty hours after the operation. The highest temperature after operation was 101° F. on the first day, the pulse did not rise above 100, and the fever quickly subsided. There was very little discharge from the gall-bladder at first, but after the third day it increased and was distinctly tinged with bile. On the sixth day some fragments of stone escaped, and on the ninth day the dressings were soaked with bile. On the tenth day another piece of stone, nearly as large as a pea, was found in one of the drainage-tubes, but now no bile escaped; and after this there was never more than a tinge of bile occasionally in the discharge, which was again scanty. Mr. Doran resumed the charge of the case on Dec. 19th, and "the patient was discharged in the middle of January, 1894, with a fistula. She called on me

[1] Mr. Doran has kindly written the portion in inverted commas for me.

occasionally. She was readmitted in May. As the fistula had not closed and as a hard body could be felt by the probe and the attacks of pain continued I operated on May 23th, assisted by Mr. Malcolm. First I passed a long probe up the fistula. The patient was well under chloroform, yet I could not feel anything like a calculus, though two days before I had made the probe touch a body which felt precisely like a gall-stone. I opened the upper part of the old cicatrix and cut through the fistula in the parietes. After cautious probing I found that the gall-bladder could be entered. By means of a probe-pointed hernia knife the fistulous opening was enlarged. The finger could be then passed into the fundus of the gall-bladder, which was found to be just below the level of the fistula. Therefore I cut upwards to the extent of an inch and a half. Then I passed in my right fore-finger and felt a small stone. By manipulation it was extracted. Then I passed a child's lithotomy sound and found the cystic duct dilated with calculi. I pressed my fingers on the parietes immediately over the upper end of the wound and pushed the stones forward into the gall-bladder. They were then extracted with long-handled forceps. They were two in number, one an eighth of an inch in its longest diameter, the other over half an inch and much faceted. I then passed the lithotomy sound four inches up the bladder and duct, reckoning from the wound on the surface of the bladder. After deliberate exploration no calculi could be felt. A stout red rubber tube was placed in the bladder, the thick edges of the wound were united with silkworm gut sutures, but the walls of the gall-bladder were not included in the sutures as they adhered firmly to the parietes. The wound was dressed with alembroth gauze; towels covered externally by a mackintosh were placed over the part and round the right flank. The operation was concluded at 10.35 A.M. Free oozing took place; at 7.20 P.M. it was simply sanious, but at 9 P.M. bright-green bile escaped. At 9 A.M. on May 27th much yellow bile came away. On the morning of the 28th the temperature reached its highest, 100·2° in the axilla; a very free discharge of bile occurred; the patient then declared that she was at last absolutely free from pain. After the 29th the temperature fell to normal. On June 16th the patient left the hospital; the fistula had closed. On July 17th I saw her; she was in good health; there was neither pallor nor jaundice, nor swelling in the region of the gall-bladder. On Oct. 19th she had a severe attack of pain, followed by jaundice next day. On the 24th I saw her; the jaundice was passing off. The fistula remained closed. Early in December I saw her again; she had felt local pain on the day before. On Dec. 23th the patient was seized with severe pain in the region of the gall-bladder; next day her friends noticed that she was deeply jaundiced. On Jan. 1st, 1895, she felt better and came to see me at the hospital. The conjunctivæ were yellow. No enlargement of the gall-bladder could be detected. A few days later she was attacked with bronchitis and was laid up nearly a month. There was much local pain all the time. After getting up and working for a few days she felt a sharp attack of pain; no jaundice was observed, and the suffering soon passed off. On Feb. 21st I saw her again. She had grown thinner, but her complexion and appearance were healthier than at any other time since she had been under treatment. On June 15, 1895, she visited the hospital in excellent health, free from jaundice and pain. The fistula remained closed."[2]

At the last operation Mr. Doran suggested that the large stone he removed might have come down the hepatic duct after my operation, and it seems to me almost impossible that a stone of irregularly rounded shape, and more than half an inch in diameter, could have been passed over in the thorough examination which I made if it were anywhere outside the liver. Moreover, it would appear from the history that other stones had been left after Mr. Doran's last operation. There is also evidence to support the view that the bile-ducts may be dilated within the liver substance and may form a receptacle for calculi. Mr. Knowsley Thornton has put on record a case in which he removed over 400 stones from a cavity in the liver close to its anterior surface—a cavity which from its situation must have been a dilatation of a comparatively small duct. On the other hand, in the case under consideration it is obvious that from the commencement of the patient's illness until the bile flowed freely from the wound after Mr. Doran's last operation the chief trouble was due to obstruction of the cystic duct, and that during the whole of that time there was only occasional obstruction of the hepatic or common bile-ducts. There seems to me to be a considerable weight of evidence in favour of the view that when the patient lifted the heavy basket in August, 1893, the big calculus which Mr. Doran removed at the third operation was forced into, and became jammed with others in the cystic duct and that I failed to discover them. The difficulty in this case is not unique, for from what I know of other men's work there can be no doubt that stones of considerable size may quickly pass down the hepatic duct or that they may be hidden away in corners of the ducts in a most extraordinary manner.

CASE 8. *Operation for four gall-stones found respectively in the gall-bladder and in the cystic, hepatic, and common ducts.*—The last of these cases was that of a woman who was under the care of Dr. Tresilian of Enfield, and she sought advice mainly on account of yellowness of the skin. She was twenty-eight years of age, had been married nearly five years, and had no children. Early in 1892 she had had an attack of pain in the region of the gall-bladder, lasting a few hours, accompanied by slight jaundice and followed by discomfort for a week. She got quite well, and remained so till Dec. 11th, 1893, when she had another and more severe attack of pain lasting three days. This was accompanied by jaundice, the absence of bile from the stools, and its presence in the urine. These symptoms did not pass off and the patient began to lose flesh. In January, 1894, there was another attack of pain followed by a constant aching in the hepatic region. The patient was admitted to the Samaritan Free Hospital on Feb. 12th. Constipation was then extreme, but a stool passed the day before the operation, although very pale, was not absolutely devoid of bile. The gall-bladder was felt distended and tender, and the liver dulness was slightly enlarged. The patient was not a strong woman; she said she had had rheumatic fever four times, and there was a slight, harsh systolic aortic murmur. Otherwise she seemed fairly healthy, but was of nervous type. Her mother was supposed to have shown symptoms of gall-stones. On Feb. 17th I opened the abdomen over the gall-bladder. There was no adhesion to the abdominal wall, but the omentum was extensively adherent around the gall-bladder. After separating the adhesions I opened the bladder. It contained no bile, but about an ounce of white secretion and two stones. The first of these was barrel-shaped, with a facet at each end, although there was no sign of a stone having been placed in front of it. Probably before the ducts became occluded, when the gall-bladder was liable to distend and collapse, this stone occasionally changed its position, sometimes one end and sometimes the other being opposed to the deeper calculus. The second calculus was of similar shape, but its inner end had two facets on it and was therefore somewhat wedge-shaped. These stones were removed with the greatest ease. After I had sponged out the fluid in the gall-bladder I passed a finger into it, and by manipulation with the fingers of the other hand in the peritoneal cavity I felt two openings very far back in the cavity of the bladder and could touch a stone in each, whilst outside the bladder I could define these. I judged that my finger was in the dilated cystic duct, the curves of which had been to a great extent straightened, and that I felt one stone in the hepatic duct and one in the common bile-duct, both these stones being of elongated shape. I attempted to remove the lower one, but it was necessary first to dilate the opening. In endeavouring to pass a forceps into the duct I suddenly found that I was able to push its closed blades a considerable distance onwards, and after this I could not find the stone. A careful examination failed to show any sign of rupture of the duct, and therefore I presume that the stone was pushed into the bowel. It was never found in the stools although carefully watched for, but possibly it was broken up by the forceps into small fragments. I next endeavoured to get out the upper stone, but although I could feel the lower end of it distinctly I failed by any means that I tried to extract it until I enlarged the opening upwards with a knife, in doing which I pierced the stone, and it at once broke into many pieces. Almost immediately after the stone broke bile flowed into the bladder, and this facilitated the removal of the fragments. When these had been extracted or pushed out by the fingers in the peritoneal cavity the fundus of the gall-bladder was sewn to the edge of the external wound, and a drainage-tube was inserted as in the two other cases. In

[2] See note 1.

this case also I placed a glass drainage-tube in the loin pouch. Convalescence was uneventful. The highest pulse was 96. The temperature in the vagina rose to 101 4° in the evening of the second day after the operation, but came well down, as low as 99° F., on the fourth day. On the fifth day the patient's condition was satisfactory in every respect. A saline purge was administered in repeated doses and was followed by sickness, distension, abdominal pain, and a rise of temperature to 101 2°. All attempts to move the bowels by purgatives were stopped, and although the patient vomited a great deal of green fluid the sickness gradually ceased, the temperature fell, and the pain passed off. On the seventh day some very hard masses of fæces were passed after an enema had been administered, and the bowels gave no further trouble. The glass tube was removed forty-eight hours after the operation. There was little discharge of bile from the wound at any time, the urine quickly ceased to contain bile, the stools became normal, and the jaundice very slowly disappeared. The patient went home three weeks after the operation, but it was six weeks before the wound healed, and it reopened four times, discharging a little matter and quickly healing again each time. The last occasion was in July. On Feb. 22nd, 1895, more than a year after the operation, the woman was quite free from irritation; the cicatrix was merely a line with a slight pucker at the point where the drainage-tube had been. The patient had a very sallow complexion, and she said that this was sometimes more obvious than at others. She had had no pain in the region of her liver since the operation, and had been able to do her house-work without trouble. She said that she sometimes felt depressed and lazy, when a purgative would put her all right again. I think there is no doubt that she had been neglecting to attend to the condition of her bowels.

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THE PHYSICS OF CARDIAC SOUNDS AND MURMURS.

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(*Concluded from p. 1509.*)

IT has been seen that the recoil of the aortic wall cannot throw the semilunar valves into sonorous vibrations, because a membrane is not thrown into sonorous vibrations when it is distended by a mass of liquid. If, however, the semilunar valves are incompetent then the recoil of the aortic wall will give rise to the production of a *stream* of liquid which will regurgitate into the ventricle. Here again there are the two necessary elements for the production of a sound or murmur—viz., a stream of liquid, and the aortic surface of the membranous semilunar valves against which this stream will impinge as it rushes past the aortic orifice, and, inasmuch as this stream will be a relatively slow one, a murmur and not a sound will result. The murmur will also be best heard near its seat of production.

If the semilunar valves are completely destroyed a ventricular diastolic murmur will still be heard. How is this murmur produced? Let the aorta of an excised heart be firmly ligatured; let the greater part of the left auricle be excised, as also the mitral valves; let water be now poured into the left ventricle from the mitral orifice. There are now exposed to view the left ventricle filled with water and the mitral orifice. Let the nozzle of a gum elastic syringe filled with water be introduced into the ventricle through the mitral orifice. If now the end piece of a binaural stethoscope be applied to any part of the external surface of the ventricle and the syringe be compressed, the direction of the nozzle being such that the stream of liquid will impinge against the inner surface of the ventricle in the vicinity of the stethoscope, then a well-marked blowing murmur is heard. It can thus be demonstrated that a muscular membrane enclosing a liquid can be thrown into sonorous vibrations, which will be heard as a blowing murmur when a stream of liquid is made to impinge against its internal surface. This is the explanation of the diastolic murmur heard in aortic incompetence even after complete destruction of the semilunar valves; the regurgitating stream of liquid impinges against the internal surface of the ventricular wall and throws it into sonorous vibrations; the murmur is here best heard below the position of the semilunar valves, for it is there that its seat of origin lies.

I will now examine the mode of production of the first sound. The muscular origin of this sound may be easily dismissed, not only because, as has been theoretically demonstrated, a cardiac contraction cannot give rise to a sound, owing to its absence of tetanic character, but if a stethoscope be applied to the biceps of a man and this muscle be made to contract powerfully no sound is heard approaching to the first cardiac sound, although here the acoustic conditions would be much more favourable for the audition of a sound if a muscular contraction could give rise to it.[1] If the aorta of an excised heart be firmly ligatured and the left auricle be slit up or excised, so as to expose to view the auricular surface of the mitral orifice, and if now the liquid contents of a large gum elastic syringe be forcibly driven into the ventricle from the auricular surface of the mitral orifice the following takes place: the ventricle becomes distended with fluid, and in its distended condition the mitral valves close in and completely shut the mitral orifice. Exactly the same result is obtained if, instead of injecting liquid, air be forcibly injected into the ventricle. As in the case of the semilunar valves, so also here it is the anatomical relations existing between the mitral valves and the internal surface of the ventricle that force these valves to completely close the mitral orifice in diastole of the ventricle, when the distension of this cavity has been produced by the forcible injection of liquid or air. The valvular flaps are so attached between the fibrous ring of the orifice and the columnæ carneæ that, when the ventricle distends, a space is left between each flap and the ventricle wall. When liquid is made to distend the ventricular cavity it presses equally in all directions. Placed between the ventricular wall and the valvular flaps, it will tend to separate them, and, in doing so, will push the ventricular wall outwards and the mitral valves inwards and backwards. But the fluid which is exercising this liquid pressure is being introduced by the mitral orifice. Therefore a moment will arrive when the pressure within the ventricle will equal that which is being exercised at the mitral orifice, and when that moment arrives the valves which were closing will have closed completely. These valves have closed, however, not owing to any reaction on the part of the ventricular muscle; they have closed solely owing to the liquid pressure which was being exercised behind the flaps, and this liquid pressure was being directly introduced through the mitral orifice, the perfect closure of the valves being coincident with, and the result of, the last drop that entered the ventricle. By substituting the gum elastic syringe for the left auricle it is seen how the mitral valves are closed by the auricular contraction; and this closure, it is important to bear in mind, can only take place at the latter part of the contraction, for the first and greater part of the auricular contraction is occupied with the distension of the ventricle, which distension must of necessity first take place in order that the anatomical relations of the valves may place these under favourable conditions for their rapid and complete closure. Now, applying the principles of production of sounds and murmurs by means of fluid streams impinging against membrane, the nature of sounds and murmurs produced at the mitral orifice may be studied. During the auricular contraction a stream of liquid is rushing past the mitral orifice into the ventricle, but towards the end of the contraction the mitral valves are suddenly thrown in against the orifice, and the stream impinges against them in this act, and as this stream is passing rapidly the valves are thrown into sonorous vibrations, which produce a sound. The first sound is thus the direct result of the auricular contraction. Its intensity will depend upon the relative strength of the contraction; its pitch will depend upon the physical condition of the valves, being lower the thicker the membranes are.

A difficulty will at once be seen to arise with this interpretation of the first sound. We have been taught to consider the cardiac impulse as due to ventricular contraction and the first sound as synchronous with the impulse. Now I do not wish to digress from the main subject of this paper by discussing the cause of the cardiac impulse; suffice it to

[1] Over ten years ago, while occupying the post of house surgeon at the Royal Southern Hospital of Liverpool, I accidentally found out this experiment while washing out a heart under a water-tap after a post-mortem examination. I then showed this experiment to some of the physicians and surgeons present at the hospital. Subsequently I learnt in Dr. Walshe's treatise on Disease of the Heart that this experiment had been previously performed by Baumgarten. It is strange that text-books on physiology make no mention of the experiment.

say that the question is still an open one. For my own part, I believe the impulse to be due to auricular contraction, which, distending the ventricle, throws it against the chest wall; and in proof of this I have sometimes, by placing one finger over the apex beat and another over the carotid pulse, distinctly observed that the former precedes the latter. Leaving aside the cardiac impulse, whose mode of origin is still a matter of dispute, I will take the carotid pulse as a more reliable sign for timing the sounds and murmurs of the heart; but even here the difficulty does not altogether disappear. If the first sound is produced by the auricular contraction one would naturally expect that this sound would precede the carotid pulse, which is the result of the ventricular contraction. As a matter of fact, according to ordinary methods of observation, in many cases the first sound and the carotid pulse appear to be synchronous. There are some cases, however, where the first sound is distinctly observed to precede the carotid pulse. Now, the first sound is only produced, as has been seen, towards the end of the auricular contraction; the ventricular contraction follows immediately; and it is known how rapidly the pulse wave is transmitted, reaching the carotid artery long before the ventricular contraction comes to an end. The carotid pulse must, therefore, follow close upon the first sound—so close that in many cases, to ordinary methods of observation, both *appear* to be synchronous, though they actually are not so.

Returning now to the examination of murmurs produced at the mitral orifice, it has been seen how a rapid and sudden stream, impinging against the mitral valves, gives rise to a sound. If the rapidity of this stream be sufficiently slowed, so that, instead of being abrupt and sudden, it be somewhat prolonged, then, according to the acoustic principles above enunciated, the sound will be changed into a murmur. This slowing of the rapidity of the stream will take place when the auricular muscle is badly nourished and fatigued, while the mass of circulating blood does not diminish in quantity. Hence the production of the so-called functional murmurs of chlorosis and fevers. These murmurs, being caused by the somewhat delayed auricular stream impinging for a somewhat longer than the normal period against the mitral valves, will actually precede the carotid pulse, but, for reasons given above, in many cases they will appear to be synchronous with it. These murmurs may likewise be produced at the basic orifices, but, inasmuch as the ventricular are more powerful than the auricular muscles, and therefore less prone to fatigue, they will be less frequent there than at the apical orifices. In mitral stenosis the narrowing of the orifice prevents the auricle from contracting rapidly, and this forces it to take more time in voiding its contents into the ventricle; therefore the rapidity of the auricular stream will be slowed and the first sound will be replaced by a murmur. This murmur will be rough in character if the auricle be greatly hypertrophied, so that the stream, as it rushes through the mitral orifice, impinges with force against the membrane formed at the edges of the orifice. This murmur, known as the mitral presystolic, generally ends with a sound. This can be imitated in the experiment with the intestine and gum elastic syringe. If the syringe be compressed somewhat forcibly there is obtained, instead of a soft blowing murmur, one rough in character. If towards the end of the compression greater and sudden force is imparted to this, then a rough murmur is obtained, which ends in a sound. In mitral stenosis, with hypertrophy of the auricle, the contraction will be at first powerful, but slow; yet towards the end of the contraction, when the auricle is nearly emptied, this, having now only a small quantity of blood to drive into the ventricle, will be able to inject it with greater rapidity and suddenness, the stream in its latter part will be quickened and sudden, and thus the rough murmur will end in a sound. The same phenomenon can be sometimes observed in the case of the ventricle in aortic stenosis. In some cases of mitral stenosis the sound is often unaccompanied by the murmur, except under special conditions. For example, if the stenosis be not very marked, and the hypertrophy of the auricle be well established, then it may be possible that the presystolic murmur will be absent when the patient is standing up and only present when he is in the recumbent posture. In the erect posture the heart works with greater activity than in the recumbent posture; hence in the former the auricular contraction may produce a sufficient rapidity of stream to give rise to a sound, while in the latter the lessened activity of the auricle may prolong the contraction to that degree which is necessary for the production of a murmur. In the same way is explained the frequent disappearance of the functional murmurs in chlorosis during the erect, and their reappearance in the recumbent, posture. In like manner other cardiac murmurs are only heard in the recumbent posture—that is, they are only heard when the respective muscles whose contractions are the direct cause of the murmurs act with greater repose and so prolong the duration of the streams which impinge against the membranes. But, again, a presystolic murmur may only be heard when the patient is made to walk quickly. In this case, when at rest, the hypertrophied auricle is capable of voiding itself with sufficient rapidity to produce only a sound, but when the patient is made to walk quickly the circulation increases greatly in activity, and, as a result of this, the blood accumulates behind the stenosed orifice—that is, it accumulates in the left auricle—and now this auricle, being overfilled, is unable to void itself, in spite of its hypertrophy, with the same rapidity as before; hence the duration of the stream is prolonged and a murmur accordingly takes place, which, however, as already explained, may end in a sound. The same explanation holds good for the appearance and disappearance of at least all murmurs due to stenosis after activity and after rest. The soft murmur which often precedes the ordinary presystolic murmur in mitral stenosis is produced by the slow and prolonged current of blood which, entering the auricle from the pulmonary veins, continues to pass into the ventricle and to impinge against the membrane at the stenosed orifice, before the auricle begins its contraction. If the mitral valves are completely destroyed, and no stenosis be present, then, unless the auricle be extremely hypertrophied, its contraction will be unattended either by a sound or a murmur. If, however, under this condition extreme hypertrophy of the auricle be present, a sound of low pitch may possibly be heard, but this sound will not be due to sonorous vibrations of any valvular membrane. If the pulmonary artery of the excised heart of an ox be firmly ligatured, and, the right auricle having been opened and the bicuspid valves removed, the right ventricle be filled with water, and the nozzle of a gum elastic syringe also filled with water be introduced within it, and if now the gum elastic syringe be compressed so that the liquid will impinge against the inner surface of the ventricle, a blowing murmur will be heard by means of the stethoscope applied to the external surface of the ventricle; if the syringe be very rapidly and forcibly compressed the murmur will be replaced by a sound. It is thus seen that when a muscular membrane enclosing a liquid has a fluid stream directed against its internal surface, provided the stream be very forcibly injected, the muscular membrane will be thrown into such sonorous vibrations as to give rise to a sound. This experiment cannot be produced with a small heart such as that of a sheep, for the force necessary to produce the required rapidity of the stream splashes the liquid out of the cardiac cavity. I have, however, succeeded in obtaining the sound when working with the right ventricle of an ox's heart. It may be asked, Why does not the left auricle ordinarily give rise to a sound, as its stream during its contraction strikes against the inner surface of the ventricle? Because, when the auricular contraction begins, the ventricle is already to some extent filled with blood, and therefore the auricular stream due to the contraction will not impinge directly against the muscular membrane, but against the liquid already contained within the ventricle, which conditions will not be sufficient to produce a sound. If, however, the auricle be extremely hypertrophied, then its stream, during contraction, may force itself through the contained liquid in the ventricle, so as to impinge directly against the inner wall of the ventricle, and produce a sound. This mode of production of a sound may be possible, but it must be rare, for in those greatly hypertrophied hearts where one might look for it the ventricle is also enlarged and must contain more blood before auricular contraction begins, and, therefore, its wall must be relatively more separated from the mitral orifice at the time that the powerful auricular stream enters the ventricle.

Lastly, I come to the consideration of the regurgitant murmur produced at the mitral orifice—the ordinary mitral systolic murmur. The fact that this murmur may exist without any stenosis of the aortic orifice might at first sight appear to destroy the truth of the acoustic principles I have enunciated. It might be argued that in the absence of aortic stenosis, the ventricular contraction being rapid, no murmur could be produced at the mitral orifice; for although the membrane against which the mitral regurgitant stream

would impinge would be present, yet, the ventricular contraction being rapid, the conditions existing would favour the production of a sound and not that of a murmur. It must, however, be remembered that the first part of the ventricular contraction is unaccompanied by any sound at the aortic orifice, and that it is only at its latter portion that the semilunar valves undergo the act of closure, and in this act present themselves suddenly against the ventricular stream that is entering the aorta. The strong ventricular stream thus impinges only for a moment against the membranous surface of the semilunar valves. In mitral regurgitation the ventricular stream impinges against the remains of the mitral membrane during the whole of the ventricular contraction; it is thus a relatively prolonged stream that impinges against a membrane, and hence the production of a murmur.

With regard to the mode of production of arterial murmurs, the same acoustic principles explain them. If the stethoscope is pressed against an artery part of the arterial membrane is pushed into the interior of the artery, and thus a membrane is opposed against a relatively prolonged stream. In aortic regurgitation the diastolic arterial bruit heard over the femoral artery is produced in the same manner.

In conclusion, to avoid confusion, I have omitted to state the combination of murmurs and sounds which may be produced at both orifices. If the sounds and murmurs of the heart are to be explained by the acoustic principle I have related, then it might be advisable to name them according to their mode of production and locality in which they are produced. Thus, the first sound is the auricular sound, and the second the ventricular. Murmurs produced at the mitral orifice and due to auricular contraction are mitral auricular systolic murmurs; these will be practically synchronous with the carotid pulse when they are functional in character—that is, when they simply replace the auricular sound owing to fatigue of the auricular muscle; they will precede the carotid pulse when they are organic—that is, when they are produced by marked delay of the auricular contraction owing to obstruction of the mitral orifice. Murmurs produced at the mitral orifice, due to ventricular contraction, are mitral ventricular systolic murmurs and are synchronous with the carotid pulse. Aortic ventricular systolic murmurs are produced at the aortic orifice owing to the ventricular systole; when these are due to stenosis of the orifice they will be synchronous with the carotid pulse; when functional—that is, due to simple fatigue of the ventricular muscle—they will succeed the carotid pulse; when due to undistensible conditions of the aorta they will be practically synchronous with the carotid pulse. Aortic systolic murmurs (regurgitant aortic) are due to the systole of the aorta and succeed the carotid pulse.

Buenos Ayres.

MILK INFECTION.

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THE publication of "An Occurrence of Milk Infection" in THE LANCET[1] has induced me to record a similar occurrence which took place ten years previously in the General Lying-in Hospital. Between July 5th and 13th five patients who had recently been delivered and six other members of the establishment were affected, the latter in some instances even more severely than the patients. Each case presented much the same symptoms: abdominal pain and tenderness more or less severe, ushered in by a slight rise of temperature with diarrhœa and tenesmus and followed by loss of appetite, extreme fetor of the breath, and a very coated, foul tongue. The stools were usually much relaxed, slimy, very irritating, and in one case developed the character of the green chopped spinach motions of an infant, and set up aphthous ulceration of the thighs wherever they came into contact. Later, moreover, towards the end of the first week of the illness, in some of the cases the mouth became sore. This soreness often began at the roof of the mouth, and aphthous ulcers subsequently made their appearance along the sides of the tongue on its under surface and along the inner side of the cheek, selecting those parts with which the teeth came into contact. The soreness was accompanied by considerable swelling. Some of the patients had lacerations about the vulva more or less severe, and in each case the open surface began to ulcerate rapidly and developed a similar aphthous character about the same time as the ulcers in the mouth began. The general condition, meantime, was not affected beyond the extent of the local mischief, and in all the lying-in women the course of the puerperium proceeded uninterruptedly towards recovery. In looking for the cause of the illness it was not difficult to satisfy oneself that the milk-supply was at fault. In the first place, inasmuch as this epidemic among patients and nurses occurred during a period of rather more than a week, it was apparent that some noxious element must have been introduced into the situation at that time only. In the second place, the illness occurring in patients in isolated wards (three in each, but only one affected), where, in view of the possibility of the introduction of infectious disease, every precaution was taken to prevent the spread of infection from one to another, and occurring in the cook and in five nurses, each kept strictly to her own ward (though in two cases attending to patients also affected), this without doubt told against infection through the air. In the third place, the initial symptoms were those of an irritant poison taken into the alimentary canal. But the patients, at any rate, were on a strictly regulated diet, so that no ordinary indiscretion as regards food would account for the illness. On the other hand, it may be mentioned that the diet of the patients during and for the first three days after labour consisted largely of milk, and that all those affected had but recently been delivered. Moreover, the nurses affected and the cook were among those members of the resident staff who were in the habit of drinking milk at dinner and supper instead of beer. Furthermore, in the milk-supply itself at that time evidence pointing to the cause of the epidemic was afforded. For ten days or rather more the milk supplied to the hospital presented the following characters, for which I can vouch from personal observation, my attention having been drawn to it in the first instance by its peculiar taste, which I can only describe as rather earthy. The milk presented a deep yellow colour, imparting to it a rich appearance, gave forth a faint, sickly odour, and though kept in a refrigerator very quickly turned sour. Several of the patients and nurses complained of its taste, and several of those affected, even before I had occasion to suspect the milk, said that the milk did not agree with them. And, lastly, on July 12th a fresh milk-supply was obtained and the milk was boiled as soon as received at the hospital; the epidemic then came to an end.

In what way the milk had become infected I am unable to say, and the milkman either could not or would not afford any clue. When questioned as to his customers, with a view to tracing other cases, he asserted that the hospital absorbed the whole of the milk sent by one farm, and none other; that he supplied no one else from the same source; and that he devoted that special supply to the hospital use because it appeared rich and good. But as the consumption in the hospital varied much from day to day, according to the number of patients, unless the dairyman's cows were exceptionally accommodating to meet the varying requirements of customers, it is obvious that there must have been a remainder which was unaccounted for. The dairyman stated that the farm had been inspected and that no disease was found among the stock. He owned to the practice of adding annatto to the milk, and gave me a sample which, as far as could be ascertained, in itself was free from suspicion. The conclusion which I myself came to at the time was that the disease must have originated in some disease in the cow itself. The following table gives the dates of admission of the patients and of the appearance of the first symptoms and aphthous patches:—

Case.	Admitted.	First symptoms.	Aphthous patches.	
			In mouth.	At vulva.
1	1884. July 3rd	1884. July 5th	1884. July 11th	1884. July 9th
2	,, ,,	,, ,,	,, 12th	,, 13th
3	,, 5th	,, 8th	None	None
4	,, 6th	,, 11th	July 13th	July 11th; on buttocks, July 14th
5	,, 11th	,, 13th	,, 15th	None

The cases above recorded appear to correspond in every respect with those alluded to by Dr. Niven in the paper to

[1] THE LANCET, Jan. 19th, 1895.

which reference has already been made, except that he makes no mention of the subsequent appearance of aphthous patches such as were often observed in the hospital cases. That these patches, both in the mouth and about the vulva, partook of the nature of true aphthæ I think there is little room to doubt. I regret that for want of time I omitted to subject the patches to microscopical examination. The peculiar green stools in Case 4 were remarkable, and, considering that as a rule a case of thrush only occurred on an average once in about 100 infants born in the hospital, it seems rather more than a coincidence that two infants should have been affected with thrush during this epidemic, one in the same ward as Case 4, and the other in the same ward as Case 5. It is possible that the oidium albicans, in addition to the other poison, whatever its nature, may have been conveyed also by the contaminated milk. In any case, I consider that it is a subject for congratulation that the hand-fed children, of whom there were several in the hospital at the time, were all taking condensed instead of cow's milk. In November of the same year an isolated case of the same character as the others came under my observation. On admission to the hospital the patient was not well, having had diarrhœa and griping pains for two or three days. From her mother I subsequently ascertained that she had a son at home similarly affected, and that she herself, daughter, and son were in the habit of taking a glass or two of milk in the day, and that the milk had had a peculiar taste and smell, was of a "funny yellow colour," and rapidly turned sour, so much so indeed that complaint had been made to the milkman. The mother herself had not been affected. Dr. Niven draws attention to the fact that in the Manchester epidemic many appear to have escaped. It was the same with patients and members of the resident hospital staff. Of the sixteen patients admitted between July 2nd and July 12th—i.e., between the admission of the first patient who fell ill and the date on which the milk-supply was changed—five only were affected, and not more than half of the resident staff of the hospital, though all probably partook of milk in a greater or less degree, each patient taking at least two pints in twenty-four hours for the first three days after delivery. As until the supply was changed it was not customary to scald the milk received into the hospital, the value of raising infected milk to boiling point with a view to warding off infection could not be determined. The question raised by Dr. Niven of the protective value of mere scalding is an important one. In conclusion, I may add that treatment was based on the assumption that the illness was due primarily to some irritant in the intestinal tract, and, with a view to eliminate the poison, a calomel purge was administered at the outset. If the diarrhœa continued the purge was followed by castor oil and opium, and later by quinine and opium in the form of pill.

Weymouth-street, W.

SECONDARY HÆMORRHAGE IN A CASE OF NECROSIS OF THE FEMUR; LIGATION OF THE FEMORAL AND EXTERNAL ILIAC ARTERIES UNDER COCAINE; RECOVERY.

BY R. N. HARTLEY, B.S. LOND.,
HONORARY SURGEON, LEEDS GENERAL INFIRMARY, ETC.

THE interesting report of a case of ligation of the femoral artery, by Mr. Southam of Manchester,[1] for secondary hæmorrhage suggested the desirability of putting on record the following case, the facts of which speak for themselves.

A boy aged sixteen years was sent to me in March, 1889, on account of long-standing necrosis of the right femur. Briefly, the history was an attack of typhoid fever in 1886, followed by an acute periostitis of the whole shaft of the right femur, with some inflammation, apparently, of the hip and knee-joints. The hip was stiff, but the head of the femur remained in its socket; the knee seemed partly subluxated and the heel rather drawn up by the calf muscles. The thigh was much thickened, and several large sinuses discharged daily much pus. The irregular mass of new bone evidently enclosed a large loose sequestrum. The boy was ill and worn from the long-existing suppuration, and on March 27th, 1889, the sinuses were dilated under ether for better examination, and through an opening made in the new mass of bone a large sequestrum was removed in two pieces, evidently the remains of the whole diaphysis of the femur. There was a very large irregular cavity, which was cleaned as thoroughly as possible and packed with strips of lint dusted over with iodoform. There was no serious bleeding during the operation. All went well till the following Sunday morning when I was hastily summoned to find the boy lying in a pool of blood, blanched, almost pulseless, and only partially conscious. It was practically impossible to make out the source of the bleeding, except that it came from the inside of the sloughy cavity and was probably arterial; and as promptness of action was imperative fifteen drops of a 2 per cent. solution of cocaine hydrochlorate were injected under the skin over the upper part of the femoral artery, and with the help of a nurse the skin was incised, the artery exposed, and a double catgut ligature passed round it at a point about two inches below Poupart's ligament. The ligatures were separately tied upon the artery, and the vessel was divided between them. The hæmorrhage seemed to be quite controlled, and during the day the cavity of the thigh was emptied of clot and packing, cleansed, and repacked. All was quiet for a week, when again on the Sunday morning following I was called, to find that the boy had had a second similar severe hæmorrhage and seemed on the point of death. An injection of cocaine above Poupart's ligament allowed a slightly curved incision to be made a little above it, and a dissection was carried through the lower part of the abdominal wall, the peritoneum was pushed up, and a double catgut ligature passed (as before) round the external iliac artery, the vessel being tied at two points and divided between them. The wound healed rapidly and without trouble, and after this there was no more bleeding at any time. Great care was taken, in the nursing &c., to preserve the vitality of the limb, and the filling up of the thigh cavity was somewhat tedious, but the wearing of a Thomas's knee-splint enabled the patient to get about more comfortably, and the subsequent division of the tendo Achillis greatly lessened the shortening of the limb. The boy is now a healthy man aged twenty-two years, learning the mysteries of "business," but with a very vivid recollection of his experience of six years ago.

Looking back, it is easy to say that it would have been better if the femoral artery had been ligatured higher up in the first instance, while the particular method of tying an artery in its continuity, the use of cocaine for the purpose, and other points might furnish suitable material for comment. The object, however, of this short communication is simply to record the main facts of the case and to express the opinion that the trustfulness and courage of the boy greatly lightened a most anxious and critical experience in a surgeon's life, and helped to avert a "surgical catastrophe."

Leeds.

[1] THE LANCET, May 25th, 1895.

A CASE OF EMPYEMA WITH COMPLICATIONS.

BY SURGEON-CAPTAIN S. G. ALLEN,
LATE ASSISTANT PATHOLOGIST AND CLINICAL OPHTHALMIC ASSISTANT, ST. MARY'S HOSPITAL.

WITH reference to an article by Mr. Stephen Paget which appeared in THE LANCET of May 4th, recording the occurrence of cerebro-spinal symptoms of an obscure character during the treatment by irrigation of certain cases of empyema, I beg to forward the following extracts from the notes of a case of somewhat similar character which has recently come under my observation.

A man aged thirty-five years was taken ill early in January last with left-sided pleurisy, followed by croupous pneumonia of the left lung, the right lung also becoming affected shortly afterwards. This double pneumonia ran a favourable course for a time, the temperature returning to normal by the end of the second week of illness, and the physical signs showing that the consolidation of the lungs was clearing up. This process of resolution gradually came to a standstill, however, and the symptoms became of a more chronic character. His condition varied from

day to day, but no noteworthy change appeared in the condition of the chest till early in March, when there was found to be some effusion into the left pleural cavity. This rapidly increased, so that by the 11th the aspirator was used to relieve pressure effects. As the fluid drawn off was found to be purulent I established free drainage of the pleural cavity by resection of a portion of the sixth rib in the axillary line. A large quantity of healthy-looking pus escaped at the time of the operation. His temperature fell to normal, and his general condition began at once to improve. No irrigation was used at first; but a few days after the operation the discharge had become much thinner, of sanious appearance, and with slight odour. Consequently a weak iodine solution (the colour of pale sherry) was used daily from this time to wash out the pleural cavity. Under this treatment the discharge became again healthy in character and gradually diminished in quantity day by day. The compressed lung re-expanded in a satisfactory manner and the remaining consolidation cleared up. For six weeks the daily irrigation was continued, and the patient progressed satisfactorily, the drainage-tube, which was originally 7 in. long, being gradually reduced to 2 in. On May 1st, however, his temperature rose to 101° F., and it was thought by the medical officer (Surgeon-Major Simpson), under whose care he at that time was, that a small collection of pus existed, which was unable to escape through the shortened drainage-tube. A long soft tube of small calibre was consequently passed down the sinus, and a small quantity of pus was evacuated. Some of the iodine solution was then carefully injected down this tube (no distension could have been caused by this, as the fluid during the injection escaped alongside the tube); while this was being done the patient was suddenly attacked with syncope. The attack was so severe that it was at first thought he had died suddenly, but by means of artificial respiration and the use of stimulants he recovered somewhat. I saw him about three-quarters of an hour after this seizure. He was then in a condition of deep stupor, neither speaking nor understanding when addressed. He groaned and cried out frequently as if in pain. His eyes were firmly closed, and he resented any attempts to open them. On raising the lids, however, the pupils were seen to be dilated and equal. The pulse was rapid (130) and weak in volume. The respiration was irregular. At the time of the attack Cheyne-Stokes breathing was noticed for a time. No motor paralysis was present, but spasmodic contractions of the fingers took place from time to time. There appeared also to be increased excitability of the sensory nerves, as when touched or moved the patient resented it and cried out. Owing to retention of urine the catheter had to be passed later in the day. This excited well-marked spasm of the urethral muscles. On the following morning the condition of stupor and general state was unchanged, but during the day he passed his urine and motions in bed. His temperature was 99°. No change occurred till the morning of May 3rd, when (after a sleep) he was found to have regained consciousness. His temperature was very low (96·4°), but rose to 98° by the evening. His mental condition continued to be very disturbed for the following three days, and he suffered from attacks of delirium, from which, however, he could be recalled by being spoken to. The pupils after his return to consciousness gradually diminished in size, but the left remained somewhat larger than the right; reaction, both direct and consensual, was normal. The temperature kept below 99°, and he was comparatively well till May 9th, when he was suddenly seized with severe abdominal pain and fever (101·4°). There was tenderness in both iliac fossæ, but no tumour or muscular rigidity. The pain was continuous in character, but every now and again it increased in severity. The bowels had been freely moved on the previous day; there was nothing abnormal about the stools and no intestinal distension. The urine contained a faint trace of albumen. The discharge from the sinus had become more abundant, but was quite sweet. Since his seizure on May 1st no further attempt at irrigation had been made. On the three days following this attack of abdominal pain—May 10th, 11th, and 12th—he had an attack of shivering, with rise of temperature every afternoon between 1 30 and 4 30. The pain, although still present, became less severe each day. On the morning of May 13th it quite ceased, and his temperature stood at 97·4°. Since then his progress has been most satisfactory. The wound is rapidly closing, and his general health is excellent.

Royal Arsenal, Woolwich.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A NOTE ON SOME AIDS TO RAPID DILATATION OF THE UTERUS.

BY AMAND ROUTH, M.D., B.S. LOND., M.R.C.P. ENG.,
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IN dilating the uterus rapidly by the method of graduated bougies one occasionally finds a good deal of resistance from rigidity of the cervix. This may be due to the presence of a fibroid in its wall or to cicatricial tissue, but the ordinary rigidity which is encountered is in the cervical zone of nulliparous women. This rigidity has led many operators to commence the dilatation of such cases by the insertion over night of a laminaria tent, which will soften and partially dilate the cervix. As there are risks of septic infection in this procedure, however carefully one may prepare both the patient and the tent, and as the patient is always in an unsatisfactory state after a night spent in such a preliminary dilatation, I have endeavoured to find means by which rapid dilatation may be so aided that tents may be dispensed with. The following are means by which for some years I have been enabled to rapidly dilate uteri so as to digitally explore the cavity without using any form of tent. 1. Drs. Herman and Braithwaite have shown that the cervix is soft and relaxed and partially patent at the end of menstruation. Clearly, therefore, Dr. Braithwaite is right in advising that rapid dilatation should be performed the first possible day after a period has ceased, and this has been my practice for some years. 2. Dr. Champneys has drawn attention to the fact that a non-secreting cervix will not dilate, whether in labour or otherwise. If a rigid cervix can be made to secrete it becomes at once relaxed. To encourage this secretion I have used a wool tampon saturated with glycerine. This is introduced by the nurse two hours before the operation to the top of the vagina against the external os uteri. This causes all the glandular tissues of the cervix to secrete profusely, and the cervix, instead of feeling like a piece of gristle, gets quite soft. I have thought, but have no proof to offer, that this effect is enhanced by the addition of some cocaine to the glycerine, possibly by allaying local spasm, as is said to occur in the "rigid os" of the first stage of labour when cocaine is applied. 3. If the cervix be considered likely to be unusually rigid, I have found unquestionable advantage from passing into the cervix, and, if possible, through the os internum, a strip of antiseptic gauze, six or eight hours before the operation, or even overnight. A few bougies may be passed if necessary to enable this to be done, and the vagina and cervix should be first antiseptically cleansed. The gauze should be soaked in glycerine and iodine. At the operation the cervix will be found to be as soft and nearly as dilated as if a laminaria tent had been introduced, whilst the risk is far less, drainage having been encouraged instead of entirely prevented. This process is painless. Of course, if the uterine discharges be offensive, neither gauze nor tents are applicable. These aids to dilatation almost always suffice to permit digital exploration, and if it should be found impossible to admit the little finger in 1 or 2 per cent. of cases, the uterus can be swabbed out and packed fairly tightly with gauze for twenty-four hours, by which time it will easily admit the finger. Gauze, in itself a disinfectant, may here be used, whereas a tent would be absolutely contra-indicated. By these aids I have been able to entirely dispense with "tents" for at least five years, both for hospital and private work.

Manchester-square, W.

A MIGRATING OVARIAN TUMOUR.

BY HEYWOOD SMITH, M.A., M.D. OXON.

THE migration of ovarian tumours is sufficiently uncommon to make the narration of such a case not without interest. A woman aged fifty-one years consulted me on April 1st, 1894. She had been married twice—

the first time for a year and a half, having one child—this was twenty-one years ago; she was a widow for three years, whereupon she again married sixteen years ago and had two children—the younger fourteen years ago. Her catamenia lasted from the fourteenth till the forty-eighth year. She said she had overwalked herself when young, and had ovaritis twenty-two years ago. If she walked too much she had pain in the right ovarian region, with heat in the vagina. The bowels acted regularly; there was no vaginal discharge. On vaginal examination her uterus was found to be retroflexed and slightly to the right; the uterine sound showed there was a slight hitch at the inner os. The right ovary was enlarged to the size of a small orange. I saw her again at the end of January this year. On Feb. 2nd, on vaginal examination, the uterus was still found to be retroflexed, and on being replaced it at once returned to its abnormal position; the cervix was congested, and on the passage of the sound there was some slight bleeding. There was a small (pin's head) polypus at the os. The tumour of the ovary on the right was rather hard, and it had increased in size. On the 7th I had a consultation with Dr. Cullingworth; he agreed with me that there was a tumour of the right ovary and that it ought to be removed. The operation was performed on the 27th. Dr. Dudley Buxton gave the anæsthetic, and Dr. Mary Scharlieb assisted. An incision of about three to four inches was made, and a tumour was found on the right side the size of an orange; it was adherent to the omentum and to the oviduct, and when these were broken down the tumour came away without a pedicle. Just below the tumour was a hydrosalpinx of about the same size; this was brought to the surface. It consisted of the fimbriated end, and the rest of the tube was traced right across the retroverted uterus to the left side of the pelvis, were it was tied and cut away. No appendages were found on the left side, but the right ovary and oviduct were found to be deep down in the pelvis, on the right. The ovary was small (size of a bean), and it and the tube were removed. The ovarian tumour was a dermoid, and contained cholesterine, hair, and some bony plates. The wound was closed in three layers, and no drainage-tube was used. On March 21st the uterus was nearly in its normal position, very slightly to the right. On the 27th the position of the uterus was normal. The interesting points about this case are—(1) the migration of the left ovary over to the right side; (2) the extension of the oviduct across the pelvis, forming a bridle keeping down the fundus of the uterus; and (3) the rapid atrophy of the other ovary three years only after the menopause. I should be glad to know whether other observers have noticed any such similar migration on the part of an ovary, and to what it may be attributed.

Harley-street, W.

A CASE OF "DYSPHAGIA LUSORIA."

BY T. H. KELLOCK, M.D. CANTAB., F.R.C.S. ENG.,
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AND
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PATHOLOGIST TO THE HOSPITAL.

THE term "dysphagia lusoria" is used by Fagge[1] in describing a case reported by Dr. Bayford of Lewes in which dysphagia occurred in a child the subject of an abnormal origin and course of the right subclavian artery; Mackenzie[2] mentions this symptom as occurring in the same connexion; and Prichard[3] has described a case where a fish-bone stuck in such an abnormal artery behind the œsophagus and caused death by hæmorrhage. Referring to Dr. Bayford's case, Fagge suggests that the dysphagia was spasmodic and its occurrence in connexion with the abnormal artery probably only a coincidence; that it may be something more than this we think the following case tends to show.

A healthy boy aged two years and ten months was brought to the Hospital for Sick Children, Great Ormond-street, on the evening of March 6th, 1894, having been severely choked whilst eating an apple; on this occasion nothing could be found in the pharynx, but the child had been affected seriously enough by the accident to warrant his being kept in the hospital that night. He was, however, discharged quite well on the following morning. On Oct. 30th he was again brought hurriedly to the hospital about 2 P.M. with the history that he had been suddenly choked whilst eating his dinner; he was cyanosed and breathing with some difficulty, and whilst in the casualty room became much worse and ceased to breathe altogether; the trachea was opened at once and artificial respiration performed for about half an hour, but without restoring natural breathing. At the post-mortem examination, twenty-one hours after death, a small blood-clot was found in the trachea, which had been opened by division of the fourth, fifth, and sixth rings. A large mass of granular-looking material (probably sausage) was found lying fairly loosely at the back of the pharynx, but it is uncertain whether or not it occluded the upper opening of the larynx. On dissecting the arteries arising from the aorta the following arrangement was found. There was no innominate artery; the two common carotids came off practically together, the left following the usual course, but the right crossing the trachea from the left side just above the sternal notch to reach its usual position on the right side of the neck. The left subclavian came off the arch of the aorta next and followed a normal course; then came the right subclavian, arising from the descending part of the arch and crossing obliquely behind the œsophagus between this and the spine and behind the right scalenus anticus muscle to its usual situation at the root of the neck, this arrangement of vessels closely resembling that described in Quain's Anatomy and elsewhere as due to the persistence of the right aortic root and the abnormal closure of the fourth right arterial arch, which normally remains patent as the right subclavian artery.

[1] Fagge's Principles and Practice of Medicine, vol ii., p. 313.
[2] Medical Times, 1876, vol. ii., p. 457.
[3] Illustrated Medical News, Dec. 1st, 1888.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

KING'S COLLEGE HOSPITAL.

FOUR CASES OF TUBERCULOUS DISEASE OF THE BLADDER TREATED BY SUPRA-PUBIC CYSTOTOMY; REMARKS.

(Under the care of Mr. W. WATSON CHEYNE.)

WHEN publishing recently the account of a case of successful cystotomy for tuberculous disease of the bladder, we commented on the small number of patients who had required this treatment. In doing so we did not mention the first two cases of the following series which had escaped our notice. We now give a short abstract of them, and bring before our readers two others which were treated in a similar manner. A curious fact, and one worthy of note, is the sex of these patients, most of the published cases having occurred in women. We agree with Mr. Cheyne in attaching importance to rest as a curative agent in tuberculous disease, but think it better to scrape these ulcerations after the opening of the bladder. Rest alone is not always sufficient to cure tuberculous disease in other parts of the body, yet when the diseased part has been subjected to the action of the curette cure often follows; few would contend, however, that the operation had removed the whole of the disease in the cases which get well after the scraping.

CASE 1.—A man aged thirty-six years consulted Mr. Cheyne in February, 1891. A short time previously he had begun to suffer from frequency of micturition, accompanied by pain towards the end of the act. This had been getting worse, and for the last two days he had been passing urine every two hours; at the end of micturition pure blood was passed, and the pain in his bladder and penis was very severe. The bladder was very tender, both above the pubis and on examination per rectum. There was no enlargement or tenderness of the prostate or vesiculæ seminales. The testicles were normal. There was no kidney enlargement or tenderness. The passage of a sound caused great pain. The urine was acid and contained blood and pus. The temperature was

99° F. The patient was pale and thin, and thought he had been losing flesh lately. Some four or five years ago he had had pleurisy and became much emaciated, but subsequently recovered. There was then a question as to tuberculosis. He was put to bed and ordered the usual sedatives. For a few days he improved, but ten days later the acute symptoms recurred without apparent cause. To sum up, he was kept in bed under treatment for six weeks, during which time he had two severe attacks and the prostate became somewhat larger. The diagnosis come to was tuberculous disease of the bladder, and as no progress was being made Mr. Cheyne thought that the time had come for operative interference. Before doing so, however, there was a consultation with a specialist, who saw and figured and located a tumour, which, it is believed, was afterwards modelled. Although Mr. Cheyne could not see it and could not accept the diagnosis, it gave him the opportunity required of insisting on opening the bladder. This was done supra-pubically on April 4th. On examining the bladder most carefully no trace of a tumour could be found, but in the trigone there were four or five deeply congested patches about the size of peas, with slight ulceration on their surfaces, and in the surrounding mucous membrane a number of minute grey tubercles could be readily seen. These ulcers were scraped and iodoform powder applied. A large drainage-tube was left in. For a day or two there was a good deal of spasm of the bladder, but this soon passed off. The drainage was continued for six weeks. The bladder wound closed at the end of June. Up till the end of the year the patient had two very slight attacks of spasm and hæmaturia, but since that time he has had no further trouble and is now quite well.

CASE 2.—A man aged twenty-three years was admitted to King's College Hospital on Oct. 29th, 1891. There was a doubtful phthisical family history. He had what was termed "congestion of the lungs" four years ago and gonorrhœa three years ago. Soon after the attack of gonorrhœa he began to feel uneasiness and pain apparently about the base of the bladder; this lasted for a year and then improved, but he had never been quite free from the uneasiness, especially towards the end of micturition. For the last three months his bladder trouble had been getting worse, and he had once or twice passed a little blood towards the end of micturition; he had been losing flesh. On admission the patient's symptoms were as follows: some pain at the commencement of micturition and a great deal towards the end, the pain being referred to the bladder, perineum, and urethra; coughing set up aching about the bladder; micturition was frequent; and the urine contained a good deal of pus. There was no swelling or tenderness of the kidneys; the testicles and cords were normal. Per rectum the prostate was not enlarged; the vesiculæ seminales were distinctly felt, but were not hard. Just in front of the middle of the right vesicula and apparently in the wall of the bladder was a hard nodule about the size of a threepenny piece, which was exquisitely tender to the touch. On passing a sound no very great pain was felt till it touched the base of the bladder in front of this nodule, when it caused very great pain. With the cystoscope a bleeding, ragged area of considerable size was seen in the trigone; a few tubercle bacilli were found in the urine. On Nov. 24th Mr. Cheyne performed supra-pubic cystotomy and found in the trigone an irregular ulcer with ragged edges about the size of a shilling. On pressing on the nodule from the rectum a little curdy material appeared on the base of the ulcer. The surface was scraped, iodoform applied, and a drainage-tube inserted into the bladder. The patient had a good deal of spasm and pain in the bladder for some days, but these soon ceased. Injections of albumoses obtained from tuberculine were also employed. The drainage of the bladder was kept up for six months, till, in fact, the nodule felt per rectum had almost disappeared and was quite free from tenderness. When discharged seventeen days later the wound was almost healed, and he could hold his urine for three hours and had none of the old symptoms. When seen about a year later he was well.

CASE 3.—A boy aged fourteen years was admitted to King's College Hospital on Nov. 14th, 1892. He had suppurating glands in the neck when quite a child. His mother died from phthisis. Four months before admission the patient began to have frequency of micturition and had a burning sensation on passing urine. The condition had been getting worse. On admission he complained of pain in the penis during and for about a minute after passing urine. There was no pain in the intervals. He passed urine about twenty times during the twenty-four hours. Attempts to hold his urine caused much pain in the bladder. The urine was acid, with much pus; the sp. gr. was 1014. There was tenderness over the bladder both above the pubis and per rectum, the right side being much more tender than the left. There was no tenderness or swelling of either kidney, no disease of testicle, vesiculæ or prostate. With a sound the right side of the bladder was more tender than the left; no stone was felt. The temperature was 99·6° F. On Dec. 7th the bladder was opened above the pubis. There was a much congested, thickened, and somewhat warty patch on the right side of the trigone, but no actual ulceration was found. A large-sized drainage-tube was inserted into the bladder. In the beginning of January, 1893, the patient's temperature rose somewhat and afterwards assumed a hectic type, and about the end of that month tenderness over the left kidney was noted, and a good deal of pus was present in the urine; the kidney was also felt to be somewhat enlarged. This continued, and in the beginning of March the kidney was distinctly enlarged and the patient was losing ground. The tube was left out of the bladder on March 2nd. On March 13th the pelvis of the left kidney was opened; pus was found in it, and a drainage-tube was inserted. For a fortnight his condition improved, but he then began to get worse again, and accordingly on April 17th the left kidney was removed. On examination the kidney was found to be tuberculous. His condition rapidly improved, but the cystotomy wound was long in healing, and indeed, had not quite healed till the beginning of July, when the patient was discharged. At that time he had no pain in passing urine and could retain it for several hours; there were only a few pus corpuscles in the urine. His general health was very good.

CASE 4.—A man aged forty-nine years was admitted to King's College Hospital on April 13th, 1893. About six years previously the patient was in hospital with cystitis, which improved under treatment, but never got quite well. In August, 1892, his condition was such that he went into another hospital and was treated there for cystitis, but did not improve. He had passed a good deal of blood lately and had great pain in passing urine, and especially on trying to hold it. The patient stated that he had a burning pain in the perineum towards the end of micturition and lasting afterwards. He passed urine about every half-hour and frequently in bed while asleep. The urine was acid, with a good deal of pus and a trace of albumen. Tubercle bacilli were found in the urine in small numbers. Nothing was found in the kidneys or testicles. The patient was put to bed, and the bladder washed out daily with boracic lotion. No improvement followed, and on May 8th, 1893, the bladder was opened above the pubis. A thickened mass was at once come upon in the anterior wall, and a quantity of cheesy material was scraped away, leaving a raw place about the size of a florin on the anterior and upper part of the bladder; the rest of the organ appeared to be healthy. A large drainage-tube was inserted, but no iodoform was applied. The tube was left out on June 21st and the wound rapidly closed. He was discharged on June 28th, and was then able to retain his urine for three or four hours and had no pain in passing it. The urine was normal. The patient had greatly improved in his general condition.

Remarks by Mr. WATSON CHEYNE.—Little need be said as to the diagnosis of these cases; the symptoms were those of ulceration of the bladder, and in two of them (Cases 2 and 4) the tuberculous nature of this ulceration was at once settled by the discovery of tubercle bacilli in the urine. In the other two cases I failed to find tubercle bacilli, but such failure does not by any means imply the absence of tuberculosis. As is well known, in tuberculous disease of the urinary tract it is often difficult to demonstrate the bacilli. When they are few in number their discovery in the urinary deposit is an accident; a considerable number might be present and yet not happen to be in the minute portions examined; their discovery really implies the presence of large numbers. In the first case the eruption of tubercles on the mucous membrane of the bladder around the ulcers was, however, so typical that there was no difficulty in the diagnosis, which was agreed to by all who saw the operation. In Case 3 the diagnosis was rendered certain by the subsequent examination of the kidney. Three of these cases (Cases 1, 2, and 4) were certainly examples of primary tuberculosis of the bladder, there being complete absence of all signs of disease in any other

part of the genito-urinary tract both at the time and subsequently. I am inclined to regard Case 3 as also one of primary disease of the bladder, and to look on the affection of the left kidney as a subsequent occurrence, but the converse is quite possible, and there may have been originally a tuberculosis of the kidney which led to the bladder infection, but did not become acute till after the operation, when possibly some septic organisms spread up the ureter and lighted up the tuberculous deposit. The result of the treatment was most satisfactory in all the cases, and I believe that practically the sole curative agent in it is the rest given to the bladder by the suprapubic drainage. Scraping ulcers in the bladder is a very unsatisfactory performance, and one cannot hope to eradicate all the disease in this way. The bladder wall is a lax structure and one cannot scrape an ulcer in it, unless on the anterior wall as in my last case, with sufficient vigour to remove all the tuberculous material. Rubbing in iodoform is still more unsatisfactory. If iodoform has any anti-tuberculous action at all it is not a sudden one, and its application once for all, as in these cases, can have little or no effect. On the other hand, to place the part at rest is to act on the principles which are at the foundation of the treatment of tuberculous disease elsewhere, and this is at once done by the establishment of permanent drainage. It was because I held this view that I continued the drainage so long in these cases (from six weeks to six months), and I did not leave it off till I thought that the disease had been arrested.

SOUTH DEVON AND EAST CORNWALL HOSPITAL.

CASE OF GASTROTOMY; REMOVAL OF A MASS OF HAIR WEIGHING 5 LB. 3 OZ. FROM THE STOMACH; RECOVERY.

(Under the care of Mr. PAUL SWAIN.)

IN THE LANCET of Jan. 9th, 1886, there is recorded by Mr. Knowsley Thornton a very remarkable case of removal of a mass of hair weighing 2 lb. from the stomach of a young woman aged eighteen. The patient recovered, and appended to the report Mr. Thornton has given an epitome of cases in which hair was found in the stomach. In only one other case, that of Dr. Schönborn of Königsberg, was an operation performed, and that with success, the mass of hair removed weighing 9 oz. or 10 oz. There are many post-mortem records. The most remarkable is one recorded by Russell in the *Medical Times* in 1869. A woman aged thirty-one died after an abortion, and there was found in her stomach a mass of hair weighing 4 lb. 7 oz. Since 1886 Mr. Swain can find only one case, and that is mentioned in THE LANCET of Nov. 24th, 1888. It is one recorded by Berg of Stockholm, who performed laparotomy on a woman twenty-six years of age and removed a mass of hair weighing about 30 oz. The patient made a rapid recovery. The case Mr. Swain relates is therefore the third on record, and is the most remarkable of the three as regards the weight of the hair removed.

A single young woman aged twenty was admitted into the South Devon and East Cornwall Hospital on March 15th, 1895, with a large abdominal tumour of which she professed to have been ignorant until a fortnight previously, when it was discovered by Dr. Hingston, who sent her into the hospital. Her history was as follows. As a child she had been healthy. Menstruation commenced at thirteen, but for the last year she had suffered from complete amenorrhœa. Five years previously she began to have attacks of vomiting, generally once daily and not always in relation to food; sometimes a week would elapse without sickness. It was for this condition that she first consulted Dr. Hingston two years previously. She had at one time a very fine head of somewhat coarse black hair which fell below her waist; but it is a fact to be noted that on three occasions during her illness she became quite bald. At the time of her admission she was a fairly well nourished girl with florid complexion, red lips, and quiet demeanour. The abdomen was largely distended by a tumour, which on palpation was found to be solid, well defined, and very movable laterally. It stretched obliquely across the abdomen from the left costal cartilages down into the pelvis, but the fingers could be passed round the lower border, between it and the pelvic cavity. It was continued up behind the left costal cartilages by a thick pedicle, apparently about ten or eleven inches in circumference. There was no tenderness on pressure. The percussion note over the most prominent part of the tumour was slightly subresonant, and in some places there was a sense of crackling as if a bit of bowel were spread out over a solid tumour. The urine was normal. It is a curious fact that from the time of her admission until the day before the operation she was upon ordinary meat diet, which she took without discomfort, being only once sick. The diagnosis seemed to lie between a tumour of the omentum and a splenic enlargement. The constitutional condition of the patient precluded the latter idea. Moreover, on careful percussion over the splenic region it seemed to be possible to map out a normal spleen. On the 20th Mr. Swain opened the abdomen by a median incision about eight inches in length, the umbilicus being the central point. The stomach was immediately exposed and found to be enormously spread out, and on palpation air and fluid were displaced and the fingers came upon a solid tumour. Thinking that this was situated behind the stomach the great omentum was turned up and the whole mass lifted, when the posterior surface of the stomach was revealed. Whatever it was, therefore, it was within the stomach, which was replaced within the abdomen and well packed round with sponges. A small incision about two inches in length was then made through the stomach wall, and the contents were immediately found to be hair. The incision was then prolonged to six inches and the process of extraction commenced. At first small portions were removed with ordinary forceps, but this was soon given up, as the whole mass was welded together so firmly as to be almost impenetrable. At last an impression was made and an entrance effected into the centre with a very strong curved Volkmann's scoop. With this the interior of the mass was evacuated, the lower figure in the engraving representing the hair thus removed. By gentle manipulation, the stomach being carefully supported by the hands of an assistant, the whole mass was delivered, as represented in the upper engraving. The larger portion

lay in the pyloric end, whilst the other end was prolonged up towards the œsophagus, and was, in fact, the pedicle described above. The stench evolved during the process of extraction was sickening. The mucous membrane at the pyloric end was studded over with circular raised patches of granulations, each about the size of a shilling; towards the cardiac extremity it was healthy. Immediately after the extraction the stomach contracted. It was well washed out with hot boracic solution and the opening closed with twenty-six Lembert's sutures. The sponges were then removed, and although a considerable

discharge of foul fluid had taken place it was found that the abdominal cavity had been well protected. The omentum was turned up over the incision in the stomach to afford extra protection, and the abdominal wound closed with silkworm gut sutures. The mass removed weighed 5 lb. 3 oz. The operation lasted an hour and a half, much time being expended in dislodging the hair. The patient rallied well from the operation. There was some little sickness, the vomited material being principally of a coffee-ground nature, from the blood extravasated during the operation. For two days she was fed with nutrient enemata only, and then small quantities of peptonised milk were given and the enemata lessened in number. The temperature never rose above 100·8° F. and reached that point only on one occasion. On the seventh day the silkworm gut sutures were removed. One near the centre of the wound had suppurated, and it was found, much to our disappointment, that a small gastric fistula was established. One of the Lembert's sutures was discharged through the opening. Feeding by the rectum was resumed, and in two or three days the fistula closed. The patient was discharged quite well on April 6th. It was never possible to extract much information from her. She acknowledged that she had indulged in the habit some time ago of eating her hair, but in very small quantities. The habit had never been noticed by her friends, and her mother could hardly be convinced of the fact until she was shown the mass of hair. The mass of hair has been sent to the Museum of the Royal College of Surgeons of England.

IN our report of the case of carcinoma of the urethra and bladder, under Mr. Battle's care in St. Thomas's Hospital, which we printed last week, the name of the house surgeon was wrongly given. It was Mr. S. W. F. Richardson who had charge of the case, to Mr. Battle's complete and expressed satisfaction.

Medical Societies.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

Fracture of the Extremities in Old People.—Intra-cranial Tumour.—Exhibition of Cases.

A MEETING of this society was held on June 7th, the President, Dr. R. BANNING, being in the chair.

Dr. ALDERSON related two cases of Fracture of the Extremities in Old People. The first case was a fracture of the neck of the humerus in a woman aged seventy-five years, in which union resulted at the end of seven weeks. In the other case a patient aged sixty-seven years sustained a fracture of the neck of the femur and recovered perfect use of her leg without any lameness. She had been treated by a long outside splint combined with weight extension, but convalescence was retarded by the formation of a bedsore.—Dr. ALDERSON also showed a boy aged thirteen years who one year previously had sustained a T-shaped Fracture of the Lower End of his Left Humerus. The patient had been treated by wooden splints, and suffered from some stiffness of the elbow-joint after the splints were removed, but after passive movements under nitrous oxide gas he had regained almost perfect movement of his elbow.—Mr. LUNN referred to several cases of Extra-capsular Fracture of the Neck of the Femur in old people due to indirect violence, and showed two specimens. He advocated the treatment of such cases by plaster-of-Paris splints, which allowed of the patient getting up on crutches at the end of a week or two.—Mr. BIDWELL also urged the treatment of fractures of the femur by the immediate application of plaster-of-Paris splints. He also recommended that T-shaped fractures of the lower end of the humerus should be treated by a well-fitting plaster splint, which ought to be kept on for a month. If the fracture had been kept completely immobilised the movements of the elbow quickly returned without much trouble.—Mr. YEARSLEY also mentioned some cases of T-shaped fracture of the lower end of the humerus which had been treated by plaster-of-Paris splints, in all of which the subsequent movements of the elbow were excellent.

Mr. JULER read the notes of two cases of suspected Intra-cranial Tumour, one of which was demonstrated to the society. The patients were women of the ages of eighteen and thirty-eight years respectively, and had come under observation on account of severe double optic neuritis. In one case the swelling of the papilla had subsided into post-neurotic atrophy, with improvement of vision. In the other a severe choked disc existed with complete blindness. Vomiting and severe headache had existed at different times in each case. These two symptoms, however, were almost invariable accompaniments of any severe optic neuritis. Mr. Juler was of opinion that, few as the symptoms were which pointed to intra-cranial mischief, they were sufficient to guide to a diagnosis, for in one case fits, failure of memory, and weakening of the lower extremities existed, while in the other periodical attacks of unconsciousness occurred. He considered that both cases belonged to that class which Dr. Hughlings Jackson has called optic neuritis with non-localising symptoms.—Mr. LUNN mentioned a case of double optic neuritis in which a cerebellar tumour was found and successfully removed. He also referred to a case of cerebral tumour which proved fatal after operation.

Mr. MAYO COLLIER showed a youth aged seventeen years on whom he had operated for Hallux Rigidus. Treatment by rest, tonics, and frictions was tried first without producing any effect, so the head of the metatarsal bone of the great toe was excised. The usual pressure caries was present on the under surface between the sesamoid bones and the head of the metatarsal bone. Locomotion was now completely restored without any changes in the functions or appearance of the foot.—Mr. BIDWELL considered that most of the cases of hallux rigidus could be relieved by forced extension under chloroform, after which the toe should be kept in a state of over-extension, by means of a plaster-of-Paris splint, for fourteen days.—Mr. YEARSLEY remarked on the combination of this condition with flatfoot.

Mr. MAYO COLLIER also showed a man aged thirty-two years who had been the victim of severe Trigeminal Neuralgia for over four years. On examination of the nose several mucous polypi, together with a piece of dead bone, were discovered. These were removed and the patient had not suffered any more from neuralgia. Mr. Collier pointed out that since the whole of the interior of the nasal cavities was supplied by nerve branches springing from the nasal ganglion of the second division of the fifth nerve irritation of the nose was almost the most frequent cause of trigeminal neuralgia.—Mr. LAKE drew attention to the more common situation of neuralgia in nasal cases and said that he was interested in the question of necrosis without even a suspicion of specific history.

Mr. KEETLEY showed two cases of Compound Comminuted Fracture of the Tibia and Fibula which had been treated by pegging and wiring of the fragments. He insisted on the necessity of keeping all the fragments even if several pieces of wire had to be inserted.

Mr. BIDWELL showed a man aged seventy-four years suffering from a Rodent Ulcer on the outer side of the left thigh. It had existed for four years and was of the size of a teacup. A portion had been removed for microscopical examination and was found to be typical of rodent ulcer. Mr. Bidwell recommended free excision, combined with immediate Thiersch's grafting.—Mr. BIDWELL also showed a boy aged seventeen years who suffered from a Warty Growth below the Jaw. This had arisen round the sinus formed from a carious tooth which had existed for five years. He considered that the warty growth was due to the continual irritation of the purulent discharge.

EDINBURGH OBSTETRICAL SOCIETY.

Chorea Gravidarum.—The Blood of the Newly Born Child.

A MEETING of this society was held on June 12th, Dr. A. H. FREELAND BARBOUR, President, being in the chair.

Dr. JAMES RITCHIE showed two Supernumerary Digits removed from a child three days after birth. Both grew from the ulnar side of the first phalanx of the little finger on each hand. The digits consisted of two phalanges and had small nails on them.

Dr. R. C. BUIST read a paper on Chorea Gravidarum in which he gave the histories of some cases as yet unreported and also a careful digest of 255 cases where this complication of pregnancy existed. In one case the movements were noticed to become less during the pain and more exaggerated after it had passed off. The child had two fits after birth. Two cases had for their cause an unruptured hymen and a polypus of the urethra. Both conditions were the source of

much pain, and on being treated the chorea accompanying the pregnancy disappeared. Of the 255 cases 66 had suffered from chorea previously to pregnancy, and 23 had had no previous attack; in 6 cases the chorea appeared at the onset of pregnancy. As regards age, the statistics show that it becomes increasingly less common after twenty-four years. With reference to the period of pregnancy when the symptoms began, it was found that 108 cases commenced in the first three months, 70 during the second three months, 25 in the last trimestre, and 15 after labour. There were 45 fatal cases in 255 pregnancies where this complication existed, giving a death-rate of over 17·5 per cent. This is probably much in excess of the actual mortality, as minor cases are not reported and some of these deaths are due to other complications, eclampsia, albuminuria, &c. Induced delivery was effected in 21 cases, with fatal results in 9 cases. A considerable number improved after operation. The general prognosis depended partly on the degree of the symptoms, as the less severe the chorea the more hopeful was the recovery; 61 cases recovered before the onset of labour, 91 after the birth, and 7 became chronic. It was interesting to note that the patient may escape entirely in subsequent pregnancies. Appended to this paper was a table analysing the 255 cases.—Professor SIMPSON remarked on the high mortality attending interference with the course of pregnancy, but believed this was due to delay in operating when serious symptoms were present, and where induction was only performed as a last resort.

A paper was read on some observations on the Blood of the Newly Born Child by Dr. GEORGE ELDER and Dr. ROBERT HUTCHISON. The blood of the child was obtained from the umbilical cord on tying it and thus the results show its condition immediately on birth; other observers have noted its composition after six to eight hours. The blood of the mother was obtained from the lobe of the ear. In the child the red corpuscles numbered on an average 5,316 000 per c.mm.; and thus from 350 000 to 500,000 more per c.mm. than in adults. During the first day or two they seem rapidly to increase, and afterwards decrease gradually. There is no difference in size or shape from those of adults. Nucleated red blood-corpuscles are present at birth in considerable numbers, but these vary greatly; on the second or third day they only saw a few and by the fifth day none could be observed. In the mother the red corpuscles in 16 cases varied from 2 to 5 millions per c.mm., and were thus below the normal average. The child had always considerably more than the mother, nearly always to the extent of 1 million per c.mm. It was thus found in these maternity cases that anæmia was the prevailing condition in the mother, and plethora in the child. In estimating the hæmoglobin the blood of the child was found to contain 95 to 115 per cent. of the normal average, so that each corpuscle was richer in hæmoglobin in the child than in the adult. In the mother the hæmoglobin was found to vary from 60 to 83 per cent., only two-thirds of the richness of the child's blood. The white corpuscles in the child were on an average 17 800 per c.mm. and thus roughly twice as much as in the ordinary adult. These observations gave the proportion of 1 white to 293 red corpuscles in the child, the ordinary proportion being about 1 to 500 in the adult. The number increased shortly after birth and then decreased proportionately with the red. The white corpuscles in the mother in 11 cases were found to have an average of 14,000 per c.mm., this being much higher than in the normal adult. In some cases the number was equal to that of her child. A few days after labour there was a marked decrease in their number, at least in those who nursed their children. From these observations it was very evident that there is no mixing of the maternal and fœtal blood. Possibly the increase of hæmoglobin and of the number of red blood-corpuscles compensates for the absence of respiration. Dr. Milne Murray had mentioned in his investigations by spectrum analysis of fœtal blood that he had found that in order to get a reduced spectrum he required to add seven times as much reducing agent as was necessary to reduce the mother's blood. The fœtal blood was much richer in hæmoglobin than the mother's, but this showed also that the hæmoglobin was more chemically active, so that in the placenta on the maternal side the oxygen was loosely held, while on the fœtal side there was very great attraction for it.—Dr. JAMES RITCHIE remarked that these observations showed that the quality of blood in the child was regulated by the quality in the mother, and it was necessary for them as practitioners to promote the health of the mother during pregnancy.

Reviews and Notices of Books.

La Thérapeutique des Tissus: Compendium des Médications par les Extraits d'Organes animaux Par le Dr. M. BRA. Paris: J. Rothschild, Éditeur. 1895. (*Tissue Therapeutics: A Compendium of Treatment by Organic Animal Extracts.* By Dr. M. BRA. Paris: J. Rothschild. 1895.)

THE alternative title of this work—"La Méthode Brown-Séquard: Traité d'Histothérapie"—indicates its scope and purpose. The author, a pupil of the late eminent physiologist, has fulfilled a task to which Professor Brown-Séquard intended to have devoted himself had his life been longer spared. This task was to collate the facts and observations relating to the new departure in therapeutics which he introduced in a somewhat startling and dramatic way by his account to the Société de Biologie of his personal experiences of the tonic effect of an orchitic extract injected hypodermically. It is pathetic to read the text of this first communication of his on the subject, and to hear the aged Professor relate how his physical and mental vigour were restored in a surprising manner by this simple expedient, and yet it is impossible not to admire the enthusiasm with which he advocated a method that almost promised to annul and arrest the natural decay of old age. Arguing from the marked physical and moral effects ensuing on castration in early life, and also on the results of inordinate exercise of the sexual glands, Professor Brown-Séquard inferred that these glands, above all others, supply the blood with principles which furnish energy to the nervous system and also probably to the muscular. He had, he said, long thought that some part of senile debility was to be explained by the withdrawal of their stimulating influence, and so long ago as 1875 he instituted experiments to test the value of his hypothesis. The issue of his researches is well known, and it has come to pass that sterilised extracts of the testes of young and vigorous animals have been prepared and prescribed for administration, mainly by the hypodermic method, for the treatment of neurasthenia, and even of organic diseases of the nervous system, besides a variety of affections such as tuberculosis, cancer, diabetes, and skin diseases. It is astonishing to find from the records here collected how wide has been the field on which this orchitic extract has been tried, and it is difficult to refrain from entering a grave protest at the irrational and extravagant claims that are advanced for its use. If but a tithe of the successes here described could be really substantiated we should possess in this animal extract not merely the most potent of remedies but one which ought to be universally prescribed. But, unfortunately, experience teaches that remedies vaunted the most loudly, and especially those which are ranked as panaceas, never fulfil the expectations of their advocates when tested by an impartial tribunal. The other animal organs which have been impressed into service of this kind of therapeutics comprise the ovaries, the cortical matter of the brain, the thyroid, the heart, the pancreas, the liver, the adrenals, muscle, the kidneys, the lungs, bone marrow, and the spleen—a list which calls to mind the contents of the witches' caldron, and the warranty for which is, with one striking exception, based on the most slender of grounds. Indeed, the author of this compendium himself points out that many of these extracts have not come up to anticipation. The ovarian extract, for example, has never gained much favour; "cardine," "nephrine," and "pneumine" are of little value in restoring the functions of a damaged heart, kidney, or lung. Nor can much be said in proof of the efficacy of extract of pancreas in diabetes, or of that of the liver in biliary intoxication. Undoubtedly

the singular efficacy of the thyroid treatment of myxœdema has done much to excite hopes of a similar good resulting from the use of extracts of other organs in affections where the functions of such organs are in abeyance; but it may be permitted to us to point out that the really positive results hitherto obtained have been mostly in connexion with glands that subserve some purpose in general nutrition, and that therefore there is more to be anticipated from the use of adrenal extract in Addison's disease, and of bone marrow in idiopathic anæmia, than from the use of "cerebrine" in mental disorder or of "nephrine" in Bright's disease. Whether it is quite legitimate to rank thyroid medication as one of the gains of the new principle introduced by Professor Brown-Séquard may perhaps be questioned, since its employment in myxœdema was strictly based on deductive reasoning from the known phenomena of cachexia strumipriva.

We confess our inability to assume any other than a sceptical attitude towards most of the medicaments here so exhaustively treated; but in spite of our belief that in a few years most of them will have fallen into oblivion we fully recognise the ability with which this book has been compiled. More than that, we think it is a book which needed to be written. It contains in the form most suitable for reference every detail regarding the preparation, physiological action, and therapeutical application of animal organic extracts, and the facts so gathered are marshalled with marked skill and candour. It concludes with an interesting summary of the "internal secretions," classified under the two heads of (1) those which maintain the composition of the internal medium, as the "secretion" of the spleen, of bone marrow, of vascular endothelia, and of the generative glands, and (2) those which protect the organism against self-intoxication (chemically acting glands), as the "internal secretion" of the liver, of the suprarenal capsules, of the pancreas, of the kidney, or of the thyroid gland. And the following are given as evidences of the insufficiency of such internal secretions: (*a*) of generative glands—diminution of the general activity of the nervous system; (*b*) of the pancreas—glycosuria, diabetes; (*c*) of the liver—appearance of morbid phenomena coexisting with icterus; (*d*) of the kidney—uræmia; (*e*) of the adrenals—asthenia, the chief symptom of Addison's disease; and (*f*) of the thyroid—myxœdema, cretinism. The work is one which should be read as indicating a remarkable phase in physiological theories; and in testimony of the cosmopolitan interest taken in the subject reference may be made to the letters prefixed to the volume from Dr. Constantin Paul, Professor Ewald, Dr. Byrom Bramwell, Dr. Emminghaus, and Professor Mendel.

Annals of Ophthalmology and Otology. Published by James Parker, St. Louis, Mo. Vol. IV., No. 2. 1895.

THIS part contains a considerable number of articles, some of which are of much interest. Dr. F. C. Hotz of Chicago discusses and opposes the views of Dr. Savage, who maintains that the oblique muscles are brought into action for the improvement of vision in cases of oblique astigmatism. Dr. F. B. Eaton of Portland draws attention to the discrepancy that exists between the laws of parallel ocular motion, as formulated by Listing and Helmholtz and their statement and interpretation in text-books, and suggests various modifications of the views generally accepted. Dr. M. W. Zimmerman of Philadelphia contributes an article on Hypermetropia of High Degree, and points out, *inter alia*, that astigmatism is present in about 50 per cent. of hypermetropes of high degree, but decreases as the error becomes higher, and also that the principal complication is convergent strabismus, which is more frequent with lower degrees of the error. Dr. Chalmer Prentice of Chicago proposes a new operation for the advancement of the recti, in which two small curved aluminium plates are employed over which the ligatures are tied. For the details of the operation we must refer our readers to the original. Dr. Maurice F. Pilgrim of Carbondale propounds the question, "Is Glaucoma curable without Operation?" and answers it in the affirmative, giving illustrative cases. Dr. Wendell Reber of Pottsville asks, "Is the Physiognomy of the Fundus Oculi in Epilepsy characteristic?" and from observations that he has had the opportunity of making on a large number of epileptics has arrived at the conclusion that in typical cases the optic disc is too abundantly supplied with capillaries, whilst it is grey in its deeper portions; that the scleral ring is sharply cut on the temporal side, that the retinal fibre layer is increased in thickness, especially above and below the disc, and that the retinal lymph sheaths are distended and opaque. Dr. W. Franklin Coleman of Chicago treats at some length the subject of Amblyopia ex Anopsia, which he holds may occur, basing his argument on the improvement of vision observed in strabismic eyes after operation. Dr. Charles Stedman Brill of New York records cases of Purulent Inflammation of the Eyeball and Orbital Tissue and Paralysis of the Ocular Muscles as possible Complications or Sequelæ of Influenza. Dr. Robert Saunders of Philadelphia describes an anomalous case of Interstitial Keratitis. Lastly, Dr. Frank W. Ring contributes a case of a thorn which remained buried in the sclera without occasioning inconvenience for thirteen years, when it worked its way out. The second part of the volume is devoted to Otology, and is chiefly occupied with a paper by Dr. M. A. Goldstein of St. Louis on Exfoliation of the Cochlea, Vestibule and Semicircular Canals; an account of an unusual case of Aural Deformity and operation thereupon, by Dr. J. Hollinger of Chicago; and an account by Dr. David N. Dennis of Erie of the Injector of Delstanche with Modified Middle-ear Lip.

The Schott Methods of the Treatment of Chronic Diseases of the Heart, &c. Illustrated. By W. BEZLY THORNE, M.D., M.R.C.P. London: J. & A. Churchill. 1895.

IN six short and very readable chapters the author gives an interesting account of the methods used in the treatment of heart disease at Nauheim. After giving an account of the waters of Nauheim and showing that effervescent saline baths may be used elsewhere, the effects of such bathing upon the pulse-rate and circulation generally are illustrated, the usual effect being a diminution of its frequency and increase in its force. Sphygmograms in proof are given. We may mention in passing that No. 6 of these shows that pulse pressure may be increased at the same time as pulse frequency. The pulse-rate of this illustration is not given, and our inference is based upon the sphygmogram. The therapeutic movements, which are conveniently and copiously illustrated, also result in retardation and increased force of the pulse. Their "immediate" effect is stated to be to slow the pulse. The sphygmograms given, however, show that the *immediate* effect is to quicken it somewhat, as is the case with all forms of exercise, although doubtless the result of such quickening by unloading the heart is the retardation usually observed. Incidental reference is made to Oertel's system of graduated mountain climbing, which is very properly considered advisable only after cardiac force has in great measure been regained. The author, however, omits to state that Oertel expressly advises flat walking—that is, gentle exercise—as a preliminary to carefully ascending heights. As is well known, Stokes of Dublin was the first to recommend this method of treatment in appropriate cases. All cases are said to be suitable for the Nauheim Kur except those in which there is advanced degeneration of the myocardium or considerable sclerosis of the vessels. In his sixth chapter Dr. Bezly Thorne relates ten cases which

were successfully treated. The majority of these were cases of cardiac dilatation, and a minority presented evidence, not quite conclusive in our opinion, of organic valvular disease. We make no doubt, however, that many cases of organic valvular disease benefit under the carefully regulated exercises described. If we have avoided the language of enthusiasm in our remarks it is because of our conviction that in no sphere is such less appropriate than in that of therapeutics, a subject which scientific medicine must ever approach with the calm and judicial mind which regards with a healthy scepticism the panacea. The chronicle of failure is always an important adjunct to therapeutic works, for such unfortunately must occur under any system.

LIBRARY TABLE.

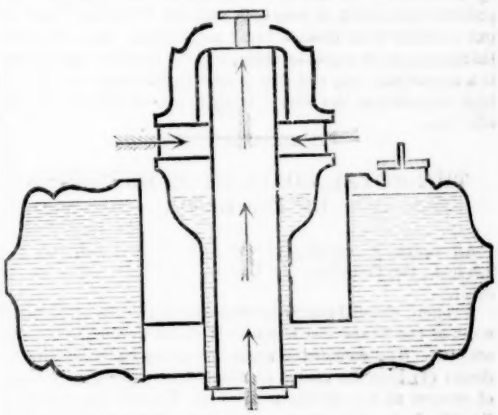
Diätotherapie für Aerzte und Studirende. Von Dr. FRIEDRICH SCHILLING. Wiesbaden: Verlag von J. F. Bergmann. 1895 (*Dietetic Therapeutics for Practitioners and Students.* By Dr. FRIEDRICH SCHILLING. Wiesbaden: J. F. Bergmann. 1895.) — Dr. Schilling's little manual of Dietetic Therapeutics is likely to be useful to medical men and students, though it contains little that is not to be found in ordinary books on the practice of medicine. He does not advance any startling novelties, and although a few of the dishes and meals mentioned are more suited to German customs than to those prevalent in this country the general principles which guide the rules as to diet are those commonly acted upon by English medical men. Thus, after a confinement the patient is recommended to be kept on the diet suited for acute febrile cases until the fourth day, when meat may be allowed. The old custom of starving the woman for a week with the mistaken object of preventing "milk fever" is only mentioned to be condemned. In diabetes moderation is recommended in enforcing a purely proteid diet. Several pages are occupied in discussing the many forms of treatment that have been recommended for corpulency, and the author's remarks on this subject will well repay perusal.

The Disorders of Speech. By JOHN WYLLIE, M.D., F.R.C.P. Edin. Edinburgh: Oliver and Boyd. 1894.—It is not easy to speak of this book in terms which would do it justice. It is, in the first place, one of the most complete treatises on disorders of speech in any language, and it is characterised by admirable arrangement and lucidity of expression. It is divided into three parts, the first dealing with functional disorders of the vocal mechanism, of which stammering is the most important and also the most interesting; the second with the development of speech and the developmental derangements; and the third with speech in its relation to the diseases of the nervous system. Such a plan is obviously comprehensive, and it may be said at once that the details of the plan are carried out in a manner which cannot fail to impress and to satisfy the most exacting critic. In the first part the view is definitely expressed—and, in our opinion, abundantly justified—that whispering is not purely an oral and lingual matter, but that the laryngeal mechanism is necessary for its production. Anyone who carefully considers what Dr. Wyllie has written on this subject can scarcely fail to be convinced of the correctness of his view. In this section the statement is made that abductor paralysis is exceedingly rare, much rarer than adductor, but this we would venture to call in question. No doubt abductor paralysis is not very common, but we cannot help thinking that the author must have overlooked the considerable frequency with which it is met with in cases of tabes dorsalis, especially in those cases in which laryngeal crises occur. The second part is very interesting, and the third is full of practical interest, perhaps erring a little on the side of being rather too definite in regard to the different forms of aphasia. But the book as a whole is, as we have already said, admirable, and Dr. Wyllie is to be congratulated on the interest—the outcome evidently of intimate knowledge—which he has infused into the work, and the medical profession of this country on a most valuable scientific addition to its means of grappling with a very difficult, if most interesting, class of disorders.

New Inventions.

THE "ARIA" PATENT SAFETY LAMP.

WHETHER or no it is desirable that the flashing point of burning oils should be altered, so as to secure greater safety in their use, is a question which will shortly be decided probably by a Select Committee. The increasing number of accidents, accompanied in many instances by more than one fatality, points at any rate to the necessity of some increased precautions being enforced by the Legislature either in the direction of providing the public with safe oils or else by insisting upon the use of safe lamps. At the present time the heavy oils which might serve for lighting purposes are not very easy to procure, while there is some difficulty in getting them to burn as satisfactorily as the lighter petroleums. It is obvious, however, that provided the lamp can be obtained which will burn the heavier oils—that is, those oils from which the highly inflammable and highly volatile oils have been removed—with as good results as the lighter kinds at present supplied, the first difficulty, namely, that of procuring "mineral colza oil" easily and at a cheap rate, will soon disappear. The "Aria" lamp is constructed to burn both oils, but security is made doubly secure by employing an oil of as high a flashing point as 250° F. and of specific gravity 0 827, which it burns perfectly well and freely, giving a brilliant steady flame of high candle power. As will be seen in the accompanying illustration, it consists of two reservoirs—a large one like a hollow collar round the



centre of the lamp holding the bulk of the oil to be consumed, and a smaller or secondary open reservoir containing the wick. The advantages of this arrangement are that the air is constantly playing around the secondary reservoir, which keeps it quite cool, so that there is no heat conducted to the large reservoir at all; charring of the wick is avoided, because, although it is immersed in a small quantity of oil, yet obviously the level of the oil is maintained in the wick tube by the pressure of the oil in the large reservoir outside; and lastly, if the lamp is by any chance upset the flame is immediately extinguished. In the latter case the bulk of the oil is retained in the larger reservoir, which being anchor-shaped only in

the reversed position, contains and traps the oil, so to speak, in each limb. Besides this the air is free to rush in so rapidly as to put out the flame. Several experiments which we made convinced us of the safety of this lamp. Even the ordinary petroleum oil of comparatively low flash-point, such as that at present supplied for ordinary use, may be safely burned in this lamp, as the reservoir is kept remarkably cool by being freely surrounded with air. We also found that the flame is extinguished by the upsetting of the lamp. Thus on turning the lamp smartly upside down when fully alight the flame was instantly extinguished by the inrush of air with the production of a trifling volume of smoke and vapour. A feature of additional importance in this lamp is that a flame of full size may be obtained without raising the upper surface of the wick more than one-sixteenth of an inch above the top of the wick tube, the depth of charring consequently being very slight. The most important advantage, however, of the "Aria" lamp is that it will burn oils from which the inflammable or volatile portions have been removed, giving a steady, brilliant flame, emitting no smell, and absolutely free from any liability to explode or ignite even when upset. Under these circumstances the use of this lamp would amply compensate for any difficulty experienced in procuring those oils which at present are not in great demand, on account of the want, hitherto, of a lamp which would burn them with good results. This want, we venture to think, has now been satisfactorily supplied. The "Aria" lamp may be seen in operation at the offices of the Cheap Wood Company, 72, Bishopsgate-street, E.C.

A NEW ACCOUCHEMENT SHEET.

UNDER the name of "cusheet," Mr. John Milne, the Antiseptic Dressings Factory, Ladywell, London, S.E., has designed a new accouchement and operation sheet, which is well adapted to the purposes it is intended to serve. The sheet or pad is composed of cellulose, which is sterilised before being placed in an outer covering rendered antiseptic by treatment with corrosive sublimate. The cellulose is a powerful absorbent, is very soft, and the "cusheet" can be put to other uses besides those mentioned. Any size and thickness can be made to order, but the two feet square size is a convenient one, and the price—1*s.* 6*d.* each—is not too high to permit of the sheets being burnt, as they should be, after use.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of the Council was held on the 9th inst., the President, Mr. Christopher Heath, being in the chair.

A report, dated June 10th, from the Committee of Management of the Examining Board in England was approved and adopted. The committee made the following recommendations: (1) that the course of clinical instruction on diseases of women at the Southern Hospital, Manchester, given by Dr. W. J. Sinclair, be recognised as fulfilling the requirements of clause (*d*), paragraph 7, section I. of the regulations, so long as he shall hold the Professorship of Obstetrics and Gynæcology at Owens College, Manchester; and (2) that on the application of the Dean of Charing-cross Hospital Medical School the course of clinical demonstrations in lunacy, given by Dr. Percy Smith at Bethlem Hospital, be recognised so long as he shall hold the Lectureship in Psychological Medicine at Charing-cross Hospital Medical School.

A report, dated June 7th, from the Laboratories Committee was approved and adopted. The report dealt with the work in diphtheria for the Metropolitan Asylums Board, and was as follows: "Examination of material for diagnosis.—Since March 11th 2180 specimens have been examined and reported upon. The Metropolitan Asylums Board have requested the committee to continue the work for the further period of six months, and the committee have agreed to do so subject to a slightly increased payment by the Asylums Board for the extra work involved by the number of cases per day being in excess of the estimate. It was anticipated that the daily average number of cases would not exceed twenty, whereas the cases examined are rarely below, and very frequently greatly in excess of, that number."

The director has undertaken, in conjunction with the medical superintendents of the hospitals, to report fully to the Metropolitan Asylums Board on the cases examined.

The Council decided that the bust of the late Sir Richard Owen, K.C.B., to be executed by Mr. Alfred Gilbert, R.A., should be of bronze.

A report dated May 17th from the President and Vice-Presidents on section 16 of the by-laws was approved and adopted; the Secretary of State had suggested that the first three clauses of this section should be condensed into a single paragraph as follows: 1. If any Fellow or Member of the College shall after due inquiry be judged by the Council to have been guilty of disgraceful conduct in any professional respect, he shall be liable to removal by resolution of the Council from being a Fellow and Member or Member of the College.

The Council abrogated and annulled the old by-laws and ordained the new by-laws and signed them. It was moved and adopted that section 16 of the by-laws as approved by the Home Secretary be read to the meeting of Fellows on the 4th prox., and that, inasmuch as the by-laws have now been sanctioned, the correspondence of the Society of Members and of the Council with the Home Secretary on the subject be not now reported to the meeting.

A letter was read from Mr. Charles S. Tomes resigning his appointment as a member of the Board of Examiners in Dental Surgery. The resignation was accepted, and the President stated that the vacancy thus occasioned, and also the vacancy caused by the expiration of the period of office of Mr. Ashley Wm. Barrett, would be filled at the quarterly meeting of the Council on July 11th. A letter of the 10th inst. was read from Mr. Thomas Bryant, reporting the proceedings of the General Medical Council. The thanks of the Council were accorded to Mr. Bryant for his services as representative of the College on the General Medical Council.

A letter of May 10th was read from Dr. Liveing, reporting the following proceedings of the Royal College of Physicians of London on May 9th—viz.: 1. The adoption of the report, dated April 22nd, 1895, of the Committee of Management. 2. The adoption of a resolution inviting the Royal College of Surgeons to appoint delegates to confer with a like number from the Royal College of Physicians as to what points should be urged or suggestions made before the proposed Statutory Commission for giving effect to the report of the Gresham University Commission, and to prepare a joint report to the two Colleges. 3. The appointment of the President, the Registrar, Dr. Norman Moore, and Dr. Allchin as delegates.

The Council, in pursuance of the invitation of the Royal College of Physicians, proceeded to appoint as the four delegates of the Royal College of Surgeons the President, Mr. Howse, Mr. Rivington, and Mr. Morris.

WIGAN MEDICAL SOCIETY.—An ordinary meeting of this society was held on June 13th, the President, Mr. Wm. Mitchell Roocroft, being in the chair.—Mr. Brady showed a case of Compound Fracture of the Lower End of the Femur, which he had treated on a Macintyre splint in a poor cottage with a very good result.—A paper on Alcoholic Insanity was read by Mr. Street, medical superintendent of Haydock Lodge Retreat. The subject was dealt with in an exhaustive and interesting manner. A discussion followed, when Mr. Jones, Mr Blair, Mr. Brady, Dr. Rees, Mr. Lowe, Mr Molyneux, Dr. Benson, and the President took part, the President dealing with the treatment of inebriates in licensed houses, and pointing out that the previous Acts require amending very considerably before the subjects can be efficiently dealt with. A hearty vote of thanks was accorded Mr. Street for his paper.

THE LANCET.

LONDON: SATURDAY, JUNE 22, 1895.

FOR the five vacant seats on the Council of the Royal College of Surgeons of England, to be filled at the election on July 4th, there is an ample supply of excellent candidates with evenly balanced claims and all on their own merits worthy of the suffrages of the electors and of a place on the Council. All may be said to have obtained in their respective spheres more or less distinction as practitioners and authors, and all have reached a position in the profession which justifies them in coming forward on the present occasion. If one may appear more brilliant another may be more solid; if one attracts us by his versatility another commends himself by his modesty and judgment; one may possess the energy and impetuosity of comparative youth, another the light of experience and the stability of age. Hence for many of the Fellows the task of selection must be difficult, and it would be so to ourselves if we had not some definite principles to guide us in our choice. To surgical repute, success in practice, and the pen of a ready writer, great weight is justly attached; but they ought not to be allowed to dominate the election in the present state of the relations of the College to the profession, or to override considerations which vitally affect the interests of the constituency. Old associations, the rivalry of schools, personal friendships and preferences play so considerable a part in every election that there is the more need for the display of that public spirit on the part of independent electors which makes everything subordinate to the welfare of the College and of the profession. From this point of view it is that known liberality of opinions and a determination to support such measures as will bring the Council into nearer touch and more harmonious relations with the constituency assume increased importance as qualifications for a seat on the Council at the present time, and such qualifications some of the candidates are known to possess.

To seniority in the Fellowship some regard should be paid. The election of a junior candidate over the heads of seniors may be necessary and even justifiable where principles are at stake, and in recent years there have been one or two notable instances of this. Under ordinary circumstances, however, and with otherwise equal claims, a senior candidate who would be a desirable addition to the Council is entitled to the preference. The sudden elevation of a junior candidate, whether in the appointment of an examiner or in the election to the Council, is rarely justified by the result and inflicts considerable hardship upon the senior candidate. In the present instance the candidates who are seniors to the others—viz., Mr. WILLETT, Dr. WARD COUSINS, and Mr. A. T. NORTON—happen to be the candidates with whose views the constituency is best acquainted and who are promoters of that policy of progress and reform with which THE LANCET has ever been identified. Without professing a complete agreement with all the details of the changes which the Association of Fellows advocates, and which, of course, discussion both in the Council and outside it may modify, we gladly recognise once more the claims which the candidates supported by the Association have upon the favourable consideration of the constituency. Mr. ALFRED WILLETT (Fellow, 1862; Member, 1859) has served one full term of eight years on the Council, and is now one of the Vice-Presidents of the College. He has been a loyal supporter of the movement for conferring upon the Fellows a more influential voice in the affairs of the College. His re-election must be practically assured, but his faithful services ought to be acknowledged by his return at the head of the poll. Dr. WARD COUSINS (Fellow, 1860; Member, 1856) is well known as a frequent and original contributor to surgical science, as a picturesque speaker, and as possessing an aptitude for business as well as administrative ability. He would represent especially the southern section of the provinces, at present unrepresented, and would take the place of the late Mr. SIBLEY in his special acquaintance with the needs of the general practitioner. Mr. A. T. NORTON (Fellow, 1867; Member, 1862) we supported in 1893, when he ran so close a race with Mr. HENRY MORRIS and only failed to succeed by two or three votes. He has continued to be a staunch supporter of the cause of the Fellows, and was the chief exponent of the views of the Association of Fellows on the deputation which was received at the College last week by a committee of the Council. His success at the election would be a material assistance to the cause of reform. Mr. ALFRED COOPER (Fellow, 1870; Member, 1861) has attained a recognised position as a specialist, but has not taken any active part of late years in the politics of the profession, so that the constituency has not enjoyed much opportunity of becoming acquainted with his views on current questions. Mr. ANDERSON (Fellow, 1869; Member, 1867), Mr. J. N. C. DAVIES-COLLEY (Fellow, 1870; Member, 1868), and Mr. H. W. PAGE (Fellow, 1871; Member, 1869) are able surgeons and estimable and cultivated members of the profession. All three, however, are on the Court of Examiners, which already possesses four representatives on the Council. There are some who consider that membership of the Court of Examiners is a recommendation for a seat on the Council; but, as may be gathered from our remarks last week, we do not share this view. The duties of members of the Court of Examiners are very exacting, and during the examinations, which are frequent, leave little time for anything else. Moreover, experience has shown that the combination of the two offices of examiner and councillor has not been beneficial to progress at the College. Four members of the Court of Examiners are already members of the Council, and it would certainly be inexpedient to increase the proportion over one-half. There is so little to choose between the three that it is almost invidious to make a selection. Last year, however, when all three stood, we supported Mr. DAVIES-COLLEY on the ground that he was believed to be favourable to a new Charter for the College, and we see no reason to withdraw from this selection. Mr. H. T. BUTLIN (Fellow, 1871; Member, 1867) is an unexceptionable candidate with liberal proclivities. He is an excellent speaker, and his surgical work and attainments are too well known to need recapitulation. The same remark applies to Mr. TREVES (Fellow, 1878; Member,

1875), who, though last, is certainly not least. His capacity for work of an encyclopædic character rivals that of Mr. HUTCHINSON, who probably first inspired him as he has inspired many others at the London Hospital and elsewhere. Mr. TREVES is considerably junior to the other candidates, and it would not be, perhaps, the same hardship if his election were postponed as might be the case with regard to one or two other desirable candidates on the list.

We make these few remarks upon the candidates to show that our sympathies remain, as they ever have been, enlisted in the cause of good government at the College. It is our great desire to see cordial and harmonious relations established between the Council of the College and the Fellows and Members, in order that the status of the profession may be elevated and its organisation perfected. The Fellows will be able to judge for themselves who are the men best qualified to complete the work which has been begun, and we commend the respective claims of the candidates to their careful and earnest consideration. For our own part, we should select the five candidates to be voted for from the following list—viz., Mr. WILLETT, Dr. WARD COUSINS, Mr. NORTON, Mr. DAVIES-COLLEY, Mr. BUTLIN, and Mr. TREVES.

WE have already noticed the reports for 1894 of the Statistical Committee of the Metropolitan Asylums Board, but we reserved the reports of the medical superintendents of the several infectious hospitals of the Board for separate notice. We have never failed to regard these reports with interest, and to derive great instruction from them. Never before or elsewhere in the history of the world have members of our profession had the chance of seeing and treating on such a scale the great groups of infectious disease which constitute so large a proportion of the sickness of the people. The number of cases of infectious disease notified last year was 34,203. No less than 62·9 per cent. of the cases of scarlet fever which are notified, 32·8 per cent. of those of diphtheria, and 15·9 per cent. of those of enteric fever find their way into these hospitals. The very least we can do in regard to such a mass of disease, taken, as it were, out of the hands of the profession outside, is to study the lessons taught us by the responsible medical officers who have charge of it. Our readers must anticipate with much interest the report of the medical superintendents on the effects of the antitoxic serum in the treatment of diphtheria, with which the hospitals of the Asylums Board are abundantly supplied through the kindness of the Council of the British Institute of Preventive Medicine. All the officers make allusion to this subject. We cannot too highly praise the caution and reserve with which the medical superintendents speak. While doing so in a tone of hope, they cordially realise the gravity of the question for the answer to which they have almost a monopoly of material. We trust that no pressure will be brought to bear on them to deliver a premature opinion. They will do much more for medical science by deliberation and delay and by applying to this treatment the most keen criticism than by any hasty judgment either for or against the remedy. Dr. GOODALL claims the whole of this year for the inquiries necessary. We do not think he is unreasonable, though he will understand the anxiety of the public for an answer when he remembers that the disease to be combated is nearly six times more fatal than scarlet fever. It is, indeed, not a little remarkable that as time goes on, and other diseases are brought into comparison with it, scarlet fever seems to become almost a mild disease. The mortality of the different infectious diseases treated in the hospitals in 1894 comes out as follows: that of scarlet fever, 5·92 per cent.; of diphtheria, 29·29 per cent.; of enteric fever, 18·13 per cent.; and of typhus fever, 16·67 per cent.

There seems, indeed, a danger that we should come to think too little of scarlet fever. It still constitutes the great bulk of the material of the work of these hospitals; but its comparatively low mortality and the somewhat sanguine estimate of what our enormous and costly isolation arrangements can do suggest the thought that it is in danger of being too lightly regarded. We may do well to remember that fluctuations in its mortality have always been recognised and that we may be now in the middle of a period of comparative mildness. As to the power of the system of isolation hospitals, one of the most respected medical superintendents, Dr. BIRDWOOD, goes so far as to say that the time has arrived when an attempt to exterminate scarlet fever might be made. It is always, of course, right to be attempting extermination, and every local curtailment of the disease shows how possible is its complete control. Such curtailment is by no means confined to the hospitals of the Asylums Board and is often to be seen in comparatively humble homes. But with such numbers as have strained the accommodation of the hospitals during the last two years, and with many instances of the apparent conveyance of the disease by patients returning home from the hospitals, it does seem a little premature to speak of the extermination of disease. The idea is, perhaps, more reasonable in regard to small-pox in the metropolis, the mortality from which sometimes reaches a vanishing point. Thus in 1838 the annual mortality from small-pox (see table on page 35 in the volume of these Reports) was 2161 per 1,000,000, in 1891 it was 2 per 1,000,000, and in 1894 20. But here we have means of control which we have not in scarlet fever. As examples of the concurrent incidence of two infectious diseases in the small-pox hospital ships no less than 44 cases of scarlet fever occurred in the course of the year. Dr. GOODALL states that 2 fatal cases of scarlet fever were complicated with puerperal fever on admission. Diphtheria still has an unpleasant tendency to occur in convalescents from scarlet fever in these hospitals, and at such a stage of the primary disease as to negative the idea of its having been contracted before admission. But on the whole the cases of this occurrence have been less frequent than in some previous years.

It is right that we should be reminded in these reports of the occurrence of errors of diagnosis. We have had occasion before to observe that the largest number of errors noticed was at the Eastern Hospital. The ascertained errors here were 3·7 per cent. of cases of certified scarlet fever, 17·5 per cent. of certified diphtheria, and 25·8 per cent. of enteric fever. The last is a large proportion of error, but it is touched upon kindly and somewhat apologeticall

by Dr. GOODALL, who remarks on the difficulty of an early diagnosis and the danger of a late removal. Granting that an early removal is desirable when the disease is ascertained, we still think that an error of 25 per cent. is one which should be largely reduced, and that while early diagnosis is an urgent duty there is no excuse for excessive haste. Some illustrations given of errors of diagnosis in small-pox are important. Eleven of these were—rötheln 2, varicella 2, measles 1, acne 1, impetigo 1, erythema 1, syphilide 1, exfoliative dermatitis 1, and no symptom of disease 1. In some cases the disease was not diagnosed. It would be wrong not to emphasise such facts and to impress on all medical men that, though errors of diagnosis are occasionally inevitable, they should be reduced to a minimum for the credit of the profession and the benefit of our patients. We cannot conclude our consideration of these reports without a word of praise for the care with which they are drawn up and a word of sympathy for the medical officers and the staff, who work at no small personal risk, as the reports show. The Chaplain of the South-Eastern Hospital died from scarlet fever, and Dr. MACCOMBIE was laid aside for four and a half months suffering from diphtheria.

THE approaching revision of the British Pharmacopœia and the arrangements connected therewith formed items of considerable interest at the recent meeting of the General Medical Council. Historically, the proceedings are well worth comparing with those of last November; but where so many points have been gracefully conceded it would serve no good purpose to revive recollections of discussions upon which we commented at the time. It is a far more gratifying task to consider the present arrangements for the performance of the onerous task of revision, and to pass briefly under review the various directions in which revision appears to be most needed.

At the outset it must be frankly admitted that the present Pharmacopœia was, at the time of its production, one of the most satisfactory works of its kind that has ever been issued in this country. Those who are prone to destructive criticism seem never to weary of pointing out errors, inconsistencies, or redundancies in the Pharmacopœia, but we imagine that there are few books—and certainly no scientific books—which could endure the close criticism of daily reference for ten years without possibilities of improvement or alteration being suggested in numerous directions. In these days every branch of science moves quickly; what was true or relatively true ten years ago is probably at variance with accepted theories of the present day, and therefore change is to be desired, and, indeed, welcomed, though the changes must be made with caution, and even with reverence. Wholesale changes, which would produce a new volume with no likeness to the existing Pharmacopœia, are to be deprecated, and are, indeed, impossible unless the whole object and scope of the book are to be altered—and this would manifestly be contrary to the Act which provides for the publication of the Pharmacopœia by the General Medical Council. It would be easy to carry the desire for change too far, and to spoil a book whose main faults are that it is ten years old and that it stands in need of revision. Many chemical tests and some of the formulæ and nomenclature require to be brought up to date, while the botany, with which, in the medical profession, we have less concern, needs many changes. Some of the official preparations, even some of those included in the Addendum, appear not to have found favour with prescribers and dispensers, while numerous drugs which are still employed to some extent are generally believed to be wholly inert, and would scarcely be missed if they were silently dropped out.

The present arrangements for the revision do not indicate the probability of any revolutionary changes, while they seem eminently calculated to ensure accuracy, or at least to render the book representative of the most modern teaching and experience. We are glad to see that, as before, the President of the General Medical Council, Sir RICHARD QUAIN, is Chairman of the Pharmacopœia Committee; the committee now, however, comprises four English members, two Scotch, and two Irish. This extension of numbers is a satisfactory improvement on the formerly proposed smaller consultative subcommittee; the addition of new names will be pleasing to the respective divisions of the United Kingdom concerned, and should lead to due consideration of the divergencies of practice which are believed to exist. This committee is to have charge of all matters relating to the preparation and publication of the Pharmacopœia, and the appointment of Dr. TIRARD as secretary will, it is to be hoped, tend to ensure a due recognition of the requisite changes in the Pharmacopœia from the student's and from the examiner's point of view. It has often been urged that teaching does not form one of the objects of a pharmacopœia, but it is none the less true that the book in question constitutes the framework of all English books of materia medica; hence it is of much importance to consider how far changes may affect the teaching of the future. The appointment of Professor ATTFIELD as editor guarantees that the present general scope and arrangement will be retained; we have often commented favourably upon his work, especially in connexion with his annual reports upon the progress of pharmacy, which present one at least of the aspects under which the work of revision must necessarily be considered; these reports have indicated that no pharmaceutical criticisms have escaped his observation, and augur well for the accuracy of the volume in this respect. The chief change, however, in connexion with the revision is the intention to submit certain points to well-recognised authorities in their respective branches, who are to be asked to act as referees and to advise the committee upon numerous questions in which special knowledge of the highest kind seems essential. The names of Mr. THISELTON DYER and Mr. HOLMES as referees in botany, of Dr. THORPE or Dr. RUSSELL as referee in chemistry, and of Dr. LAUDER BRUNTON, Professor FRASER, and Professor WALTER SMITH as referees in pharmacology and therapeutics will sufficiently indicate the desire of the Pharmacopœia Committee to leave no stone unturned in the endeavour to render the revision as perfect as possible; and, at the same time, their position as referees shows that while there is every desire for accuracy there is equally no intention to arrange for the production of a volume in which any special branch of study should be

allowed an undue predominance. The amount of labour that must be expended is sufficiently shown by the report of the Pharmacopœia Committee.[1] As on a former occasion, the various medical authorities have been appealed to for information, and many have responded with "communications of great value." Evidence as to the relative frequency of employment of certain drugs and preparations has been furnished from two points of view, from a careful inquiry addressed to medical men and from a similar inquiry obtained from the Pharmaceutical Society. Communications have also been sent from the Colonies and from India. The committee of revision, therefore, has an enormous amount of material to deal with, and it is to be hoped that it will see its way clearly to winnowing the wheat from the chaff, and to utilising only those suggestions which appear to come with sufficient practical authority. In 1885 an independent spirit was maintained, and the committee did not follow implicitly all the suggestions which were made, whether for additions or for omissions, and we fully anticipate that a similar course will be now pursued, and that ultimately the bulk of the book will be found to have undergone no very great alteration. Rearrangement and condensation will probably suffice to afford space for the limited number of new drugs which have come into general use during the last ten years; hence it may be anticipated that the new Pharmacopœia will be found to be diminished rather than increased in size. The arrangements for revision and the amount of material already contributed and collected afford ample grounds for believing that Sir RICHARD QUAIN, in his presidential address, was not unduly sanguine in expressing his conviction that the forthcoming edition of the British Pharmacopœia would be "one worthy of the Council under whose direction it is issued."

Annotations.

"Ne quid nimis."

THE CASE OF SURGEON LEA, R.N.

SURGEON LEA of H.M.S. *Ringarooma* was on April 30th last tried by court-martial at Sydney on charges of insubordination and contempt in regard to his superior officer, Captain S. A. Johnson, in command of that vessel. The trial lasted three days and resulted in the following sentence: "The court, having unanimously found the charges against the prisoner proved, commands him to be dismissed from Her Majesty's service." The sentence was subsequently confirmed by the admiral. But the matter cannot be allowed to end here. We have carefully read the evidence and proceedings as reported in the *Naval and Military Record* of the 13th inst. Surgeon Lea represented that it was essential to his case, and for the justification of his conduct in the matter, that the state of health of Captain Johnson should be made the subject of evidence and investigation, but the court held that the question of the health of the captain was immaterial and had nothing to do with the charges on which Surgeon Lea was being tried, and refused to go into the subject. Surgeon Lea was told, however, that he could, in the course of any statement he might make, bring the question of the captain's health before the notice of the court. It is stated that he had over fifty witnesses, including many medical men, but as much of their evidence bore upon the mental condition of Captain Johnson it was refused by the Court. In the course of his statement in his defence, Surgeon Lea urged that at the time of the occurrence out of which the charges arose the captain was mentally deranged and unfit for duty, and in corroboration of the correctness of this opinion he entered very fully into what may be termed the previous medical history of this officer. Moreover Surgeon Lea urged, and was able to prove, that he was himself subsequently transferred to the *Dart* and unconditionally released from arrest by the commander of that vessel. The evidence and proceedings of the court-martial as recorded by our Service contemporary are presumably incomplete. Under all the circumstances of the case, and considering the unsatisfactory nature of the evidence, and that Surgeon Lea has served nearly twelve years in Her Majesty's Navy with an unblemished record and is very heavily punished by the sentence of the Court, we are decidedly of opinion that the matter calls for further careful investigation by the Admiralty authorities in this country.

[1] THE LANCET, June 15th, 1895.

EYESIGHT AT SEA.

WE should much like to know what action has been taken by the President of the Board of Trade in regard to the testing by an expert of the vision of sailors both as to acuteness and to colour. It will be remembered that on Feb. 1st last a deputation of nearly all the most distinguished ophthalmic surgeons in Great Britain waited upon the President of the Board of Trade and strongly urged him to take immediate steps to subject everyone whose avocation is to conduct or control traffic, whether at sea or on land, to tests which should be at least sufficient to protect travellers from preventable causes of disaster. It cannot be too strongly insisted on that the great ocean steamers move at the rate of from fifteen to twenty miles an hour, and that consequently when two are steaming in opposite directions they approximate at the rate of a mile in two minutes or less, so that a look-out whose vision is six-twelfths—a defect that is by no means uncommon—would have very few minutes to distinguish and avoid a vessel steering stem on in the opposite direction. Mr. Caldwell's letter in our issue of last week is sufficient, even if it stood entirely alone, to show the imminence of the danger to which all passengers are constantly exposed. In that letter Mr. Caldwell states that on a trial trip he discovered a fresh hand who was the possessor of a glass eye. This circumstance led him to examine all the men on duty for that night, with the result of finding that the man on the opposite side of the bridge also had imperfect vision. These men were excused from night duty; but the very next night, whilst running down the Channel, the Cunard liner on which Mr. Caldwell served missed almost by a hair's breadth a collision with an East Indiaman. Mr. Caldwell justly remarks that it is impossible to say what would have been the result if these two men with imperfect vision had been on the look-out that night. But if short shrift is allowed to those with imperfect sight at sea to determine the course and position of an opposing vessel, how much more necessary is quick and accurate vision and correct perception of colour in those who drive our modern railway engines when running at from fifty to sixty miles an hour. Instead of minutes, a few seconds may here lead to vast loss of life and property. Every engine-driver and every stoker, for if the engine-driver breaks down the stoker must act, should have perfect distance and perfect colour vision. Sooner or later this must be ascertained. Sooner or later an expert must be appointed, and if this is to be done why then should it not be done before rather than after the

accident which, without such supervision, is sure to come? From Mr. Stuart Brooke's letter in our last week's issue the East Indian Railway, the largest undertaking of the kind in India, has made its medical officers responsible for the sight and colour vision of its employés, and has thus made every endeavour to protect the travelling public from accidents attributable to this cause. If it can be done in India why cannot it be done in England? We travel more than any other nation in the world, and it is only right and fitting that our risks should be reduced to a minimum.

THE ABUSE OF STREET COLLECTIONS.

IT may seem ungracious to check the kindly impulses of the charitable, but we must enter a grave protest against the growing practice of street collections, which, if permitted to continue uncontrolled, can only have one effect, and that a disastrous one, upon the cause of charity itself. It would almost seem as if the promoters of charities of all kinds, good, bad, and indifferent, had found it to be more profitable for the cause they champion to sit at the street corners or perambulate the footways with money-boxes than to deluge the householder with circulars and appeals. Doubtless they are justified from their standpoint in this change in their mode of attack upon the purse, but its very aggressiveness will in time do much harm to collective charity. The "man in the street" will not discriminate between the different objects for which he is importuned in this fashion, and, following the wholesome rule he applies to the vagrant beggar, he will resolutely abstain from responding to any such appeal in person. We fear, too, that the abuse of this practice will react injuriously on causes which really deserve recognition, and that the apathy of the Londoner, which has been so strikingly evinced in respect to Hospital Sunday, will be confirmed and extended by reason of this importunity.

THE ORIGIN OF MASSAGE.

DR. FORESTIER of Aix-les-Bains has an interesting paper in *Le Progrès Médical* of May 25th last on the Origin and Terminology of Massage. The physician of l'Hospice Évangélique is of opinion that the method of treatment now known as massage was first introduced into Europe by some of the returning members of Bonaparte's Egyptian expedition of 1799, and relies for his information upon a book entitled "Des Eaux Thermales d'Aix en Savoie," published at Chambéry in 1808. Dr. Daquin, the author of the work in question, after a passage *à propos* of the douche, speaks of the manipulations and frictions which were observed by Captain Wallis amongst the aborigines of Otaheite, and then proceeds as follows: "Those who followed the Emperor Napoleon in Egypt inform us that this method was also in existence amongst the people of that country, and that it was employed after the bath; the name of *massement* has been given to it, and it is administered to the person whom they want to *master* by rubbing successively the entire surface of his body. ..... According to this account I think that this operation, which strikes me as a very salutary procedure, might with great advantage be put in practice, after their bath or douche, upon those who make use of our thermal waters." Dr. Forestier is satisfied that this evidence is conclusive; but if confirmation of the antiquity of the term massage be needed it is forthcoming. In 1838 Dr. Despine produced a work under the title, "Observations de Médecine Pratique faites aux Bains d'Aix en Savoie" (Annecy, 1838), and in it the following passage is to be found: "Since the renaissance of our Thermes in 1816 we bathe and we douche ..... we scrub, we *masse*, we stew." As regards the etymology of the words massage, masseur, &c., Dr. Forestier believes that they are derived from the Arabic by a species of transliteration. He has been told by a native of Egypt that at the present time the word "matz" is used to indicate the operation of massage, and seems to pin his faith to the assertion. We are not aware that there is such a term current in modern Arabic, but there is another way of accounting for the origin of the name "masseur" which we have much pleasure in bringing to Dr. Forestier's notice. The country which we call Egypt is, in reality, Masr, which is commonly pronounced *Musser*. If the process of massage was really introduced by one of Napoleon's Savoisien medical men, what more natural than the bestowal upon its professor of the name of the country whence he brought it: the new art hailed from Musser, and hence the person who practised it came to be called a masseur?

THE NEW LOWER SCHOOL AT THE ROYAL MEDICAL BENEVOLENT COLLEGE.

HIS ROYAL HIGHNESS THE PRINCE OF WALES, whose interest in medical politics has before now been prominently manifested, has consented to lay the foundation stone of the new lower school buildings at the Royal Medical Benevolent College, Epsom. The day fixed for the ceremony is Tuesday, July 9th, and full details will shortly be issued. It is an interesting coincidence that about forty years ago His Royal Highness was present upon the occasion when his father, the Prince Consort, opened the buildings of the original Royal Benevolent College. The Prince Consort had by previous promise arranged to lay the foundation stone of the building, but was prevented from doing so by an attack of measles.

THE EVICTION OF MR. T. M. WATT.

THE eviction of a medical man from his home may be the greatest hardship that can be inflicted upon him, and from the case of Mr. T. M. Watt no single element of hardship would seem to be absent. He has resided at Hovingham for twenty-four years, and has now been turned out of his house by his landlord, Sir William Worsley, whose opponent he has been in rural politics. He had invested all his capital in his practice, and the action of Sir William Worsley must go far to deprive him of his livelihood, for on geographical and other counts no chance remains for him in an attempt to hold his own against a rival established in his old headquarters. With regard to Sir William Worsley's perfect legal right to treat his own property as he chooses and to re-enter into its possession at any time that his legal covenants permit him to do so, there can be no question. On a minor point as to the correctness of the wording of the notice to quit, the legality of his action was unsuccessfully disputed by Mr. Watt; but on the broad case there can be but one opinion—Sir William Worsley has acted within his legal rights. We propose to consider his conduct, however, on the lines of his duty towards his neighbour, and viewed in the light of the written words of the Book of Common Prayer and the unwritten code of common sense we find Sir William Worsley, wanting in charity and reason. It has been Mr. Watt's duty, as he conceived it, to oppose the head of the village in questions of rural policy. Therefore he must go. We cannot conceive a step more damaging to the order to which Sir William Worsley belongs—the English squirearchy of which it was an English fashion to be proud—than such arbitrary exercise of authority, albeit legal. Why should Sir William Worsley judge for the villagers of Hovingham and district what medical man they should employ? But by driving out Mr. Watt and supporting a successor to him that is precisely what he will do. And in questions of public health, why should not the medical man, who knows the technical

ins-and-outs of hygienic questions, attempt to secure for his patients the most sanitary environments in his power? He would be wanting in his duty to those under is charge if he did otherwise. The indignation of the neighbourhood has been gravely roused at Sir William Worsley's behaviour, and we are not surprised to learn it, for a more high-handed course of action than that pursued by him has never come under our notice. We speak from the statement laid before us by Mr. Watt, which, we may add, has been widely disseminated for some days in a very important local paper—the *Leeds Mercury*. The statement has, we believe, never been denied, and we are compelled, in registering our heartiest sympathy with Mr. Watt, to believe that no denial is possible.

THE DWELLINGS OF THE POOR.

THE need of comfortable and home-like dwellings for the poor has been so often and so urgently insisted on that it seems a work of supererogation to refer to it again. Despite all the efforts that have been made, the money that has been spent, and the labour that has been ungrudgingly given, an enormous amount still remains to be done, and one of the agencies for lessening this amount is the body whose report for 1894 lies before us—namely, the Mansion House Council on the Dwellings of the Poor. This council takes note of insanitary houses and arrangements and calls the attention of the local authority to the same. If no good result follows this step the members of the Council take the matter into their own hands. One important point upon which the report lays stress is the need of one uniform standard of sanitation for London so that the present diversity of opinion, by which one magistrate upholds what another will condemn, may be done away with. The report mentions with righteous praise the "cottage homes" projected and worked by Miss Octavia Hill. These homes are artistic, comfortable, and infinitely more homely than the barrack-like "models" which exist in so many parts of London, and, we are sure, exert a far greater influence for good on those who live in them.

HOUSE SURGEONS AND CORONERS' INQUESTS.

THE question of the payment of members of the resident staff of a hospital for evidence at inquests is always arising. Last week the house surgeon of the Metropolitan Hospital, having been required to make a post-mortem examination on a patient who died in that institution, and to give evidence at the inquest, complained to the coroner that he received no fee, and mentioned that the necropsy alone had kept him for three hours from his ordinary duties. The coroner, Dr. Wynn Westcott, expressed his regret, but declared that he had no power to allow the witness a fee. The law on the subject is contained in the Coroners' Act of 1887 (50 & 51 Vict., cap. 71), which, after mentioning the fees which may be paid to medical witnesses at inquests, has the following paragraph: "Where an inquest is held on the body of a person who has died in a county or other lunatic asylum or in a public hospital, infirmary, or other medical institution, or in a building or place belonging thereto or used for the reception of the patients thereof, whether the same be supported by endowment or by voluntary contributions, the medical officer whose duty it may have been to attend the deceased person as a medical officer of such institution as aforesaid shall not be entitled to such fee or remuneration." The injustice of such a practice is obvious, for not only has the house surgeon often to go some distance to attend the inquest, but he is liable to a fine of £5 (as the very next paragraph declares) should he not obey the summons. If the death occurs just outside the hospital the house surgeon, if called as a witness, does receive a fee, but if the patient dies five minutes later no fee can be demanded. The resident medical officers of hospitals, like the majority of medical men, do a great deal of work for which they do not receive any remuneration, so that it is unreasonable to ask them even to give evidence without a fee; but it is still more unjust to expect them to perform post-mortem examinations without any remuneration.

"THE HOMŒOPATHIC TREATMENT OF DISEASE."

UNDER this title there appeared in the *Echo* of May 29th a letter signed "Arthur de Noé Walker, M.D.," announcing on "reliable" authority "from Italy that Professor Baccelli, teacher and lecturer of *(sic)* clinical medicine at Rome and Minister of Public Instruction, has instituted a 'Cathdra *(sic)* Omeopatica,' aggregated to the University of Naples and already frequented by about 200 students." Inquiry at headquarters—"Il Direttore della Segreteria della Regia Università di Napoli"—has elicited the brief but conclusive statement "che in questa Università non c' è insegnamento di medicina omeopatica" (that in this university there is no instruction in homœopathic medicine). From all that we know of his Excellency Dr. Baccelli, a homœopathic chair is about the last adjunct to medical teaching that he would institute. As President of the Accademia Medica di Roma and as sometime Professor of Clinical Medicine in the Roman school his precept and practice are as diametrically opposed to the "homœopathic heresy" as the most rigid allopath could desire. The announcement, indeed, that he had affiliated to the Neapolitan school a chair of homœopathy is about as credible as would have been the statement that to the nineteen sections into which the work of last year's International Congress of Medicine and Surgery was distributed he had added a twentieth in honour of the disciples of Hahnemann.

MUSIC IN MEDICINE.

OUR genial and inimitable contemporary *Mr. Punch*, amongst whose warm admirers we are glad to rank ourselves, makes the suggestion that music may have some therapeutic virtue the subject of a most amusing sketch in his issue of June 8th. It takes the form of "Notes from a Patient's Diary." On Monday "feel rather out of sorts to-day; send round for the doctor. He shakes his head gravely and produces stethoscope. I protest that there is nothing wrong with my lungs, but he explains that he treats all his patients by music nowadays; supposed stethoscope turns out to be a cornet on which he performs selections from 'Il Trovatore' for my benefit. ..... Later on in the day a small musical-box arrives, labeled 'to be taken twice a day.' Find it only plays one tune out of 'Rigoletto.' Pitch it out of the window." Tuesday and Wednesday witness various adventures in the pursuit of music as a remedy. On Thursday the patient "is aroused by five barrel-organs performing simultaneously under my next-door neighbour's window. Send a note round suggesting that they should be dispersed. Answer, 'Sorry to cause annoyance, but our youngest child is suffering from chicken-pox and has been ordered street music every three hours.' Go out to buy an air-gun. Later in the day, happening to take up THE LANCET at the club, I find a long article on 'The Treatment of Pleurisy by Beethoven's Fifth Symphony in C Minor.'" Friday's adventures are not less diverting, and our only regret is that our contemporary did not pursue the subject further. The sketch is a good example of the admirable humour in which *Mr. Punch* is unrivalled. To reply seriously to such genial satire would argue unusual obtuseness on our part. The *rôle* of music as a therapeutic agent is, no doubt, a very limited one, and its application to, say, pleurisy had not occurred to us until we read our contemporary's article! The medical

profession is accustomed to suggestions from outsiders, and can only regret that such suggestions so seldom add to the resources at its command. If on some future occasion we should recur to the subject of the less familiar *armamenta medicinæ* we might do worse than give honourable mention to the perennial stream of pure and never vulgar wit which flows from the columns of our leading comic journal. We know of no better remedy for the fatigue that comes of incessant literary work than to dawdle over an old volume of *Mr. Punch*—and is he not seen in the waiting-room of every consultant?

THE YORKSHIRE BOILER EXPLOSION.

THE village of Warrenby, some two miles from Redcar, has been the scene of a most appalling and probably the most destructive boiler explosion that has ever occurred in the North of England. On Friday, the 14th inst., at about half-past nine o'clock in the evening, twelve of the fourteen boilers attached to four furnaces in full blast at the Redcar Iron Works suddenly burst, with the result that nine men have lost their lives and others have been terribly injured. The boilers were of the "egg-end" type, 60 feet long and 4½ feet in diameter, placed close together side by side. The pressure per square inch has ordinarily been 60 lb., and the boilers have, it is stated, been officially inspected regularly once a month. So great was the explosion that five of the boilers were lifted from their beds and forced backwards to a considerable distance, while brickwork and pieces of iron were hurled for distances of 200 yards or more. This very great violence, however, singularly enough, probably lessened the number of casualties, for many of the missiles were carried far above the heads of the workmen, and had it not been for the flood of boiling water in which the men standing near were caught the damage to life would no doubt have been surprisingly small. About 400 hands were employed at the works, and as it will be some months before the damage can be fully repaired the distress in the little village of Warrenby, which practically owes its existence to the ironworks, is likely to be great. Until the Board of Trade's report is announced it is impossible to state the cause of the catastrophe, but the terrible disaster furnishes a lesson which should not be passed unheeded. Soon after the accident a large staff of medical men were on the spot, but the injured who could not be taken to their homes had to be carried on stretchers through Redcar to the North Ormesby Cottage Hospital. Surely near all large works where a number of workmen are employed some better provisions might be made for cases of this kind, and we trust that workmen will move in the matter in their own interests.

THE DUTY OF ATTENDANTS ON THE INSANE.

WE have received from Messrs. Potter, Batten, and Davis, of Clapham Common, a copy of an address to asylum attendants by the Rev. Henry Hawkins, Chaplain of the London County Asylum, Colney Hatch. This address, dedicated by the well-known Chaplain of Colney Hatch to his fellow workers among the infirm in mind, is well worthy of consideration by all attendants upon the insane, though it is more particularly directed by title to those who are off duty or invalided. Without taking a formal text he recalls how it was once said to men who were over-wrought, "Come ye yourselves apart into a desert place and rest awhile," and to those asylum attendants who are laid up by illness he gives useful words of advice. We may be allowed to differ from him as to an attack of illness being always a suitable time for the individual to minutely cross-examine himself as to the conduct of his life from the earliest years, such introspection being apt to pass into morbidity; but we quite agree with him that a temporary retirement from a person's usual occupation may have its profits and advantages. The asylum attendant has not always been, and is not always, strictly mindful of the necessity of conscientiously keeping the rules of the institution he belongs to when his superior officers are out of sight; he may not be considerate to his fellow workers if they are ill; he may be tyrannical to younger attendants or may connive at negligence; and, more important than all, he may not have done his duty to patients in the matter of kindly speaking and in avoiding roughness in handling them, and to all these points the Chaplain of Colney Hatch draws attention. He speaks, further, of the advantage of a season of illness in affording a much-needed rest to mind and body. Asylum attendants are exposed to much wear and tear of mind and body and are in need of frequent opportunities for rest, quite independently of illness. The ordinary hospital nurse has long hours, but is not usually exposed to most irritating abuse, or even personal violence with possibly permanent injury, and has not a constant legal responsibility hanging over her. Mr. Hawkins urges on attendants—and the lesson needs to be impressed upon them not only in sickness but in health—the duties of sympathy with suffering, sympathy with fellow workers, patience, and conscientious work. We are sure that among asylum attendants are to be found many who carry out their duties without the slightest reproach, and the system of training attendants and examining them as to their suitability for nursing the insane which is now carried on by the Medico-Psychological Association tends to add to their number; but there are others for whom the same cannot be said and who would be greatly benefited by a perusal of the address we have been considering, and therefore its circulation among attendants upon the insane would, we think, be productive of good results.

A YEAR OF SUCCESS IN THE PREVENTION OF CRUELTY TO CHILDREN.

NEVER probably during the whole period of its existence has the National Society for the Prevention of Cruelty to Children delivered its annual report in a tone of such exultant gratitude as at its meeting in the Mansion House on May 14th. Nor is it in this without justification, either as regards its social and financial position or the extent and success of its operations. Its income shows an increase of £14,400 on that of last year, and against this there is a relatively marked decrease in expenditure. The number of cases investigated during the year is greater by 3477 than that of the previous year; and it is significant of the judgment exercised by the society's agents that only 4 per cent. of the cases brought into court have been dismissed. Finally, the society has not been forgotten by our Sovereign in the year's distribution of honours, and is to be congratulated on the acquisition of a Royal Charter of incorporation. There need be no surprise, therefore, that so great a measure of success, well-earned as it has been, should have called forth the warmest expressions of satisfaction at the meeting referred to. Lord Iddesleigh and Mr. Rider Haggard both spoke in support of a motion which "would respectfully impress upon magistrates the importance of supporting the society's endeavour to enforce the discharge of parental duty." There is without doubt some ground of necessity for this very moderately worded protest. Some members of the judicial bench, it is to be feared, are still unduly impressed with the sentiment which holds that home is a castle hardly to be entered, even though it be misgoverned by an unnatural parent. It is to be hoped that this fallacy will not long be maintained in the face of both justice and domestic happiness, and that Mr. Haggard's counter maxim, which makes

the child's home to be "much more his castle," will become a part of our national creed. The reluctance of magistrates to convict in cases of cruelty is in all probability due in no small degree to the fact that the children brought before them do not always show the obvious marks of violent ill-usage. Cruelty is capable of many subtle modifications, and the starved, neglected, probably beaten but not disfigured child cannot always express the bitterness of his hard lot so as to secure more than very partial remission of his daily torture or entail any but the lightest sentence on his tyrant. The agents of the society have facilities far exceeding those of the police for arriving at the truth in such matters, and it is due chiefly to their exertions that the majority of cases taken to court, some of them diabolical in their cruelty, have resulted in conviction. We feel assured, therefore, that no true lover of order and justice, or of his fellow creatures will withhold his support from the efforts put forth with tact and discrimination, and happily with much success, by this young but vigorous and deserving society.

THE DIFFUSION OF SMALL-POX.

DURING the week ended June 1st there was only a single case of small-pox in London, and during the whole of the five weeks of May there were only 31 attacks in the metropolis, with but one registered death; the four weeks of April had contributed 37 cases, but no death. The notified cases in the four weeks ended May 18th numbered 40, but half of these were in the two sanitary areas of Holborn and Lambeth. In the first week of June the attacks rose to 5, but still no death occurred, and there was apparently no small-pox in the suburban districts. Last week there were half-a-dozen cases in London and a single registered death from the disease—namely, in a person aged between twenty and forty years and stated to have been vaccinated, the individual belonging to the Hammersmith sanitary area. In the southern midlands there was but little small-pox last week or in recent previous weeks, and Bedford seems to have all but got rid of the outbreak that threatened for some time to become serious. But at Derby matters have not very materially improved, there having been upwards of 60 cases in the last six weeks; a few days since there were 42 patients in hospital, although the building is, it is said, intended only for 40 cases at one time. In these circumstances the town council decided to purchase one of the wooden wards recently used at the infirmary and to remove it to the hospital site. The original case is now stated to have given rise to thirty-seven other cases in a more or less direct manner, one of the last of these being a barmaid at the public-house in the centre of the town which the first patient had visited. Three fresh cases were isolated last week in the borough, and three deaths were registered, the deaths having occurred on three successive days. At Ripley, near at hand, a further case having developed, the district council decided to take proceedings against persons who had exposed themselves under circumstances which seemed to justify action of a penal character, after payment made by the council with the view of curtailing the chances of spread of infection by the movements of the persons in question. At Belper last week a case of small-pox occurred in a man who had held office in a lodging-house at Ripley. He was admitted to the casual ward, but later the council decided to rent a cottage near the town and therein isolate the patient, the medical officer fearing lest some epidemicity of the disease should ensue by reason of its appearance among the vagrant class in the neighbourhood. Small-pox has also recently been introduced into the Hayfield Workhouse in the person of a vagrant on the same day that two inmates were buried after succumbing to the malady, other inmates still being sufferers from the disease. A case has been notified at Rawmarsh recently, the victim being a professional singer who had in the preceding few weeks fulfilled engagements at Derby, Ripley, Ashton-under-Lyne, and Barnsley, in addition to visiting other places, while the eruption was out. The family with whom she stayed in Rawmarsh just prior to her case being diagnosed have been placed in quarantine. In Lancashire several places have had experience in small amount of the disease during recent weeks, including Manchester with two cases last week, and one in each of the two preceding weeks, all removed to Clayton Hospital; and Salford, Wigan, Bolton, and Oldham, a death being registered in each of the latter two places a fortnight ago, and a further death in Oldham last week. In the large towns of Scotland there were 3 deaths from the disease in May, 2 of them in Glasgow and 1 in Edinburgh. In Dublin in the two latter weeks of May the admissions of small-pox patients to hospital showed some fluctuation, the number in the first of the weeks having been 16 in excess of that immediately prior, while in the week ended June 1st the admissions fell again from 28 to 10, the patients discharged numbering 21 and one death occurring, and the cases remaining in hospital being 41 acute, with other 34 convalescent patients at Kilmainham. Later records show still further improvement.

ACCIDENTS CAUSED BY CURETTING THE UTERUS.

THERE is an interesting paper on this subject by Dr. R. Pichevin in the May number of the *Annales de Gynécologie et d'Obstétrique*. Among the ill consequences that have resulted from curetting he enumerates: 1. The production of abortion from the untimely introduction of the curette into the pregnant uterus. 2. Serious after-effects, and even death, from want of observance of strict antiseptic principles. 3. The rupture of a collection of purulent matter encysted in the immediate neighbourhood of the uterus,—pyo-salpinx, for instance. Should such an accident be thought to have occurred he advises either immediate laparotomy or vaginal hysterectomy. 4. In very rare cases uterine atresia has been produced by, or has followed curetting. 5. The most frequent accident has been perforation of the uterus by the curette. The consequences of this accident have generally been insignificant; indeed, according to Dr. Pichevin, a Vienna gynæcologist was in the habit of pushing the sound through the uterus into the peritoneal cavity with the object of demonstrating the harmlessness of the proceeding. No doubt it is harmless in a large proportion of cases; but Raffay in a recent thesis, while reporting three cases that recovered, records one also where death occurred. It seems clear that perforation by the curette is more likely to take place when curetting is done after a confinement at term, or after premature delivery, than when performed after an abortion in the earlier months. As regards the causes of perforation, sometimes it may be due to want of skill or care on the part of the operator; in some cases it may be due, as Auvard has insisted, not to the curette, but to the method of dilatation employed prior to the curetting. Metal dilators with expanding blades are very likely to cause such an accident, but it has been known to occur when the dilatation was effected by Hegar's dilators. Auvard, it will be seen, thinks the curette merely discovers a perforation that has been already made. We referred to his views in THE LANCET not long since. Finally, it seems that there are certain very rare cases where the wall of the uterus is so thin at some point that perforation may be inevitable, no matter how gently the curette be used. The diagnosis of perforation may sometimes be made erroneously. Several authorities have noticed a sudden enlargement of the uterine cavity to occur during curetting. This, of course, allows the

curette to pass in much further than before, and might easily lead a nervous operator to think he had perforated the uterus. A correct opinion may be formed by ascertaining the length of the cavity with the sound at two or three different points.

THE HEALTH OF PROFESSOR HUXLEY.

IT is with great regret that we learn as we are going to press that the health of Professor Huxley gives ground for anxiety. It is true that the pulmonary troubles upon which we commented when referring to his illness some six weeks ago have not returned, but the evidence of renal insufficiency is very clear, and the condition is accompanied by anasarca and marked failure of physical strength. Professor Huxley's mind remains perfectly clear.

URTICARIA AND URIC ACID.

THE *New York Medical Record* of June 1st contains a paper by Dr. Edgar J. Spratling of Matteawan State Hospital, Fishkill Landing, New York, suggesting a connexion between urticaria and an undue amount of uric acid in the system. A female patient aged twenty-four, suffering from dementia, was noticed at nine o'clock to be sitting quiet, inattentive, and immobile. At eleven urticarial wheals, raised thickly over the whole face, not previously present, were observed. Such wheals were easily produced in other parts of the body by slight friction. Inquiries as to the personal case of the patient gave no light. She was immediately placed in bed and ten ounces of urine drawn off, having a specific gravity of 1031, highly acid, and containing many crystals of uric acid. Warm water used afterwards for washing out the bladder was found to have a specific gravity of 1003 and to contain uric acid crystals. The bowels were cleared and the patient allowed to remain quiet for twenty-four hours, when the wheals still persisted about the legs and thighs, though not in the face. The urine had now a specific gravity of 1029, and many uric acid crystals. The blood, too, was shown to contain crystals of uric acid. The bladder since the second day was washed out twice daily. On the third day the specific gravity of the urine had fallen to normal, and neither it nor the blood was found to contain any crystals of uric acid. The wheals had disappeared and could not be produced by any amount of friction. The case is interesting as throwing light on some cases of urticaria. But the mode of treatment is not applicable in most cases, even if the causation of all cases were the same, which is doubtful. It is found in practice in many cases that after the failure of what may be called an anti-gout treatment tonics promote the removal of the wheals.

THE DANGERS OF EAR-PIERCING.

THERE is nothing more necessary to our physical well-being than cleanliness. The saying is trite, for we all admit its truth in general terms. Experience is likewise a well-worn authority, and it is somewhat a matter for regret that we should even at this late day have so much to learn from trite experience about the primary duty of being clean. Yet the course of human life is constantly interrupted by incidents and accidents which prove the neglect of this duty. Such, for instance, was the case of an infant who recently died in Hackney from septic or some allied form of poisoning after having her ears pierced for ear-rings. A pawnbroker from whom the earrings were purchased was the operator. A day or two later—that is, about the time when septic mischief if present would show itself—the ear became swollen and ulcerated, and the case, as said, ended fatally. In commenting upon this unfortunate occurrence the coroner's jury held that it was not proper for a pawnbroker or for anyone but a medical man to perform this operation. There is a certain theoretical correctness in this argument, but it is open to the accusation that in its devotion to pure logic it ignores the reasonable claims of practical convenience and even of possibility. More serious operations than that of ear-piercing, such as circumcision among others, are performed by careful and intelligent laymen duly skilled in their particular office with notable success. Ears have been pierced by jewellers and others for generations, and an accident in its performance must be relatively rare. We cannot, therefore, agree with the jury that medical men are alone capable of this office, which indeed would not be hailed by most of them as a work worthy of high professional intelligence or skill; but, on the other hand, there is not the less, but rather more, need that the person performing it should be careful and capable. Local authorities ought to see to it that they are so, and an offence such as that which proved fatal in the case quoted above should be made legally punishable if it is not such already. A wound—cleanliness; this is the only safe combination, the only safe rule. Its recognition is not for the surgeon only, but belongs to the stock of elementary knowledge which is the common property of all mankind. A dirty wire in the ear, a dirty pin or needle breaking the skin surface may lead to consequences preventable always, but well-nigh irreparable if neglected in their beginnings.

SERUM THERAPY IN PULMONARY TUBERCULOSIS.

WRITING in the *Journal of the American Medical Association* of May 4th, Dr. C. H. Ingraham draws some interesting conclusions from results of his observations on injections of the simple primary serum from the blood of the mule in patients suffering from pulmonary tuberculosis. Although the injections were administered for a sufficient length of time for them to manifest any curative properties, Dr. Ingraham states that he is obliged to record that he did not in any individual case see an improvement that would warrant a continuation of the treatment. The effects produced were as follows: 1. A fine rash producing intense burning or itching, which appeared usually from three to ten days following the first administration, and continued for from three to seven days, when it disappeared permanently. Rubbing or irritation of the rash produced large eruptions having the appearance of "water-blisters," which soon disappeared. The intensity of the eruption bore no proportion to the amount of serum injected. 2. Severe pains of a neuralgic character, which only followed the administration of a large amount of serum. These pains appeared with no regularity whatever, neither were they manifested for any certain length of time. In most cases their severity was governed by the quantity of serum injected. These pains did not yield readily to the influence of opiates or any other treatment. They usually appeared near the site of the injection, but occasionally in a remote region. 3. The typical eruption was accompanied by a pronounced rise of temperature. This rise was also present some hours before the eruption made its appearance. The temperature sometimes reached 104° F., or even higher. It remained at its full height, with little or no fluctuation, until the eruption became less intense. 4. Following the disappearance of the eruption the temperature dropped to normal, or even below. If the case was one of acute tuberculosis and had a high temperature, the diminution of fever was as pronounced as in the milder form. The temperature remained low for two or three days, after which it gradually resumed its former stage. In one or two cases the temperature remained low for nearly a week, but eventually it resumed its former height. 5. Swelling of the extremities, lips, and eyelids sometimes accompanied the eruption, but usually subsided as the eruption disappeared. 6. Subsequent injections of serum did

not cause a second eruption, though the pain was liable to return if too much serum was given.

THE grand bazaar in aid of the funds of St. Mary's Hospital will be opened in the Portman-rooms at 1 P.M. on Thursday, June 27th, by the Princess of Wales, and the programme promises an excellent series of entertainments. Among the lady artistes are Mrs. Clement Scott (who will recite an ode specially written for the occasion by Mr. Clement Scott), Mrs. Bernard Beere, Miss Irene Vanbrugh, Miss Fanny Brough, Miss Geneviève Ward, and Miss Kate Rorke. The dramatic entertainments of Mr. George Alexander and Mr. Yorke Stephens will be given on the opening and following day, and Mr. Wilhelm Ganz's grand afternoon concert will take place on Saturday, June 29th. Many other attractions will be provided, and we wish the charity every success.

A SMOKING concert will be given on Thursday, Aug. 1st, at the Portman-rooms, Baker-street, W., under the auspices of the Æsculapius Lodge and Chapter in honour of medical Freemasons who may attend the meeting of the British Medical Association. Tickets can be obtained from the Honorary Secretary, Dr. T. Dutton, 7, Portland-place, London, W. Members of the profession applying for tickets should state the name and the number of their lodge and their masonic rank. Masonic clothing will not be worn. Foreign medical masons are especially invited.

DR. VALENTINE BALL, C.B., F.R.S., director of the Museum of Science and Art, Dublin, who died on Saturday last in his fifty-second year, was the son of Dr. Robert Ball, the naturalist, and the brother of Sir Robert Ball, F.R.S., Lowndean Professor of Astronomy at Cambridge, and of Dr. Charles Ball, the well-known Dublin surgeon. He made many important contributions to the science of geology, and his ability as a lecturer on this and cognate subjects was well known.

THE next social meeting of the Hampstead Medical Society will be held at the Conservatoire, Eaton-avenue (near Swiss Cottage), on Tuesday next, June 25th. At 8.30 P.M. an address will be delivered by Mr. Edmund Owen, M.B., F.R.C.S., on "Inflammation of the Shafts of the Bones in Children and Young People," and a discussion will afterwards take place on the subject. The honorary secretaries, Dr. W. Barter and Dr. A. H. Cook, cordially invite the attendance of members and their medical friends.

THE annual dinner of the Epidemiological Society will take place at the Grand Hotel, Trafalgar-square, on Friday, June 28th, at 7.15 P.M. The chair will be taken by the President, Mr. Shirley F. Murphy, and tickets, half a guinea each, may be obtained for members and their guests from Dr. Bulstrode, 4, The Mansions, Earl's-court, S.W.

MR. T. GRIGOR BRODIE, M.D., Lond, has been appointed Lecturer on Physiology at St. Thomas's Hospital, in the vacancy caused by the resignation of Professor Sherrington, F.R.S. The school is to be congratulated on having secured the services of such an excellent teacher.

THE Master of the Salters' Company will distribute the medals and prizes to the students at Guy's Hospital on Wednesday, July 3rd, at 3 P.M. The wards, museums, college, and new laboratories will be open from 3 to 5.30 P.M.

WE are asked to state that Dr. Pringle is resigning his appointment as assistant physician to the Middlesex Hospital, and not that of physician-in-charge of the Skin Department.

THE President, Council, and members of the teaching staff of University College, London, will hold a conversazione on Thursday evening, June 27th.

DR. R. THORNE THORNE, C.B., F.R.S., has been elected a Foreign member of the Société Française d'Hygiène.

Pharmacology and Therapeutics.

THE QUALIFICATIONS FOR DISPENSING IN UNION AND PARISH DISPENSARIES.

THE President of the Local Government Board has issued to the guardians of the poor of the unions of Birkenhead, Cardiff, London (City), Derby, Fulham, Gloucester, Greenwich, Hackney, Holborn, Nottingham, Plymouth (incorporation), Poplar, Portsea Island, Reading, St. George's, St. Olave's, St. Saviour's, Stepney, Strand, Walsall, Wandsworth and Clapham, Westminster, Whitechapel, Wolverhampton, and Woolwich; and to the guardians of the poor of the separate parishes of Birmingham, Mile-end Old Town (Hamlet), Paddington, St. George-in-the-East, St. Giles (Camberwell), St. Giles-in-the-Fields and St. George (Bloomsbury), St. Leonard (Shoreditch), St. Luke (Chelsea), St. Mary Abbots (Kensington), St. Mary (Islington), St. Mary (Lambeth), St. Marylebone, St. Matthew (Bethnal-green), and St. Pancras, the following general order, altering the regulations as to the qualifications of dispensers :—

No person shall be qualified to be appointed a dispenser unless he shall be a Licentiate of the Society of Apothecaries of London, or shall hold a certificate of that society as to his qualification to act as an assistant in compounding and dispensing medicines, or shall be a compounder of medicines duly qualified in accordance with the Regulations for the Army Medical Staff Corps, or shall have been duly registered under the Pharmacy Act, 1868, or shall have been duly registered under the Pharmacy Act (Ireland), 1875, and the Pharmacy Act (Ireland), 1875, Amendment Act, 1890, as qualified to compound medical prescriptions.

We think that the expediency of this provision as regards the qualification of future dispensers will be obvious to all our readers, as it is to us.

AIROL.

When one of the groups of hydroxyl in subgallate of bismuth—the so-called dermatol—is replaced by iodine a greenish-grey, inodorous, and tasteless powder is obtained which possesses antiseptic properties and has a great capacity for combining with water, and therefore for drying up moisture. It has been named airol and has recently been employed by Dr. Fahm of Basle as a dressing for wounds, especially for burns and varicose ulcers of the leg, with considerable success. He also gave it internally to a child aged twelve who was suffering from tuberculous enteritis. Three grains twice daily rapidly produced a marked improvement in the diarrhœa and colic-like pains.

GLYCOLYTIC FERMENT IN THE TREATMENT OF DIABETES.

The glycolytic ferment, which was obtained a few months ago by Professor R. Lèpine of Lyons by hydrating malt diastase, has recently been employed by him in the treatment of diabetes, the results being sufficiently marked to justify the hope that with more study and greater experience this ferment may prove to be of real value in some forms of this disease. In the four cases which Professor Lèpine published in *La Semaine Médicale* of April 24th the diet was first restricted, and when the glycosuria had diminished as much as it appeared likely to do the effect of the ferment was tried. In each case the amount of sugar passed per diem was further diminished, and at the same time the ratio of sugar to urea was reduced. When later the ferment was stopped the patients all passed more sugar than during the treatment. Perhaps the most remarkable case was that of a man aged forty-four years who had been discovered to be diabetic in April, 1894, when he was passing 6 litres of urine per diem. He was put upon a restricted diet, which had the effect of stopping the polyuria

and of bringing the sugar below 50 grammes in the twenty-four hours. In March last he again came into hospital and was found to be passing about 2 litres of urine containing from 40 to 84 grammes of urea and from 29 to 47 grammes of sugar, there being a distinct parallelism between the urea and the sugar, even when as a test 100 grammes of glucose were given, this not increasing the quantity excreted to any great extent, so that the case was pretty certainly one not depending on mere consumption of sugar, but on something connected with the azoturia. Though the man was very stout—weighing 200 kilogrammes—the ferment had a marked effect, reducing the average sugar from 41 to 11 grammes and the percentage of sugar in terms of the urea from 64 to 30. Further, after the treatment was stopped the sugar only rose to 14 grammes, and the percentage of it in terms of the urea to 39. Professor Lèpine remarked that the effect of the ferment was less after it had been taken for some days; also that attempts to obviate this by increasing the dose were not successful, so that whatever the action of the ferment might be in the chemical laboratory it could by no means be said that in the system of a diabetic patient the effects were at all proportional to the quantity. Not only, however, were the patients made to pass less sugar by a very small quantity of the ferment, the daily dose being 1 litre of liquid containing 3 grammes of ferment, but at the same time there was a marked improvement in their general condition. It is worthy of remark that no diuresis was produced and no unpleasant effect whatever, so that the remedy is one which may be tried without any misgiving on the part of medical men. The difficulty is to obtain the ferment, which does not keep more than a few hours, and which must be used immediately it is neutralised. If, however, the directions given in Professor Lèpine's original paper[1] are closely followed there will be no serious difficulty.

GALEGA AND OTHER GALACTOGOGUES.

Galactogogues are a somewhat unsatisfactory class of drugs, and any light that can be thrown upon them is welcome. Dr. Griniewitch, who has been making a series of experiments upon them, has found that there are a few vegetable drugs which really increase the quantity of milk secreted without in any way acting detrimentally upon it, the specific gravity not being altered and the fat being even somewhat increased. The most efficient of all is a plant which, though it is said to have sudorific properties, is practically unknown in medicine, the common goat's rue (*galega officinalis*). An extract is prepared, and from this a tincture is made containing 6·5 per cent. of the extract. The dose of this tincture is from 50 to 100 drops repeated five times a day. If preferred, the extract may be prescribed in 4-grain pills, which may be taken from one to four times a day. A syrup may also be made containing 5 per cent. of the extract. The next drug in the scale is the common stinging nettle—*urtica urens*; a tincture containing 20 per cent. of the extract is prescribed in divided doses amounting to from 250 to 500 drops during the day, or a syrup may be employed. Cumin, anise, and fennel are also in the category, and these can be prescribed in powder—15 grains from once to five times daily.

THE ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH FOR THE ADMINISTRATIVE COUNTY OF LONDON.

I.

EARLY in the autumn of last year Mr. Shirley Murphy presented to the London County Council his first annual report as medical officer of health for the administrative county of London—namely, that for the year 1892. In noticing that report shortly after publication, we took occasion to congratulate its author on the eminently successful manner in which the several branches of science ancillary to what is included under the term "sanitation" have been applied by him to the elucidation of the many complex problems which still encumber the path of sanitary progress. We therefore hailed the appearance of Mr. Shirley Murphy's inaugural report as of the happiest omen for the future of public health administration in Greater London. We have recently received the second of Mr. Shirley Murphy's annual reports, which deals with the events of the year 1893. As regards its general scope, and the arrangement of its subject matter, this report closely resembles its predecessor, and in common therewith bears abundant evidence of the patience, diligence, and skill with which it has been prepared. The tables, charts, and other illustrative devices are so arranged as to be really helpful to those readers, whether sanitarily expert or not, who seek instruction respecting the important details which are to be found on every page of the text. It is, further, encouraging to notice, as showing his special fitness for the task of conserving the health of the metropolis, that Mr. Shirley Murphy has throughout appreciated and kept steadily in view the two-fold purpose which reports of this kind should always be made to serve. The prevailing notion, which is probably also that of sanitary authorities generally, would seem to be that the object for which such reports were designed by the Legislature is mainly that of placing on record the useful and praiseworthy official acts of the administrative sanitary authority. But for us, as a profession, it is far more important to remember, and to act upon the knowledge, that in providing for the systematic publication of these periodical reports, and prescribing their general character, it was obviously the paramount intention of the Legislature to secure that the medical officer of health should be encouraged and required to utilise to the uttermost the opportunities thus periodically afforded him of formally and publicly advising his authority, and of imbuing them with scientifically correct notions concerning the direction which sanitary progress should take.

We may truthfully repeat with regard to this report what we said of its predecessor last year—namely, that it appears to us in every way excellent and worthy of the important subjects of which it treats. In accounting for the somewhat late appearance of this second report, Mr. Shirley Murphy pertinently remarks that "the time at which his own annual report can be prepared depends on the date at which the several district reports are received by the Council." It appears that in several instances these necessary contributions are but tardily sent in, and, as a consequence, the appearance of the chief medical officer's report is correspondingly delayed. We therefore agree with Mr. Shirley Murphy in expressing the hope that in future years the earlier receipt by him of the reports of district medical officers of health will enable a report for the entire area of London to be presented with less delay. We are glad to note that the County Council have seen fit to place on sale both these valuable contributions to sanitary literature. The successive health reports may, therefore, be studied with both pleasure and profit by all who take an interest in the health and consequently the prosperity and general well-being of the vast and rapidly increasing population of the English metropolis. In our review of Mr. Shirley Murphy's first report we published in these columns certain extracts and tables from that document with the object of giving some idea of its scope and general character. As we have before remarked, the general plan of the first report has been adhered to in the second; we shall not, therefore, again discuss those points which are common to both reports, and which were dealt with at length in our previous notice. There are, however, certain features in the report for 1893 which appear there for the first time, and which for many reasons are deserving of special consideration. We shall accordingly proceed to notice briefly the more important of these features in ensuing issues.

[1] Archives de Médecine Expérimentale, 1er Mars, 1895.

LOCAL GOVERNMENT (SCOTLAND) BILL.

Now that the Scotch Grand Committee has been appointed the sanitary provisions of the Local Government (Scotland) Bill are likely to come under immediate discussion. It may be recollected that last year's Bill had to be shorn of some of its most useful public health clauses to facilitate its progress towards the statute book. Most of these have now been revived, and a new clause has been added. The Government acted wisely in passing as much as they could of their Bill in 1894, and they are quite right this year to endeavour to bestow on Scotch local authorities certain other powers universally acknowledged to be valuable. Of course it would be much better if, instead of all this piecemeal legislation, a new and complete Public Health (Scotland) Act could be passed, but at present this is not to be looked for, and in the domain of State medicine small mercies in the way of legislation have often to be accepted.

The procedure necessary for the compulsory acquirement of land by local bodies has hitherto been so cumbersome and so costly as to cause it to be comparatively seldom taken advantage of. In particular, the provision of hospital accommodation for infectious diseases has been greatly retarded in this way. The present Bill provides the necessary remedy. Under it there would no longer be need for going to Parliament for a Provisional Order. The court of appeal would be the Local Government Board. In the event of a public inquiry being demanded, the person holding such inquiry would be paid at no higher rate than three guineas a day, no expert witnesses would be heard, and in determining the amount of compensation no allowance would be made in respect of the purchase being compulsory. This last proviso would not, we presume, exclude from consideration the question of the purpose for which the land was to be required, and of possible depreciation in the value of immediately adjoining land belonging to the seller—say, by the erection of a fever hospital.

Section 9 proposes to give to county councils the long-demanded right to make by-laws regarding new buildings; but the powers specified are very defective. There is not a word about such absolutely essential matters as the prevention of damp, or ventilation underneath floors. This being so, it would be too much to look for provision as to building materials, thickness of walls, or prevention of fires. No doubt such omissions are intended to conciliate possible opposition, but the sacrifice at the shrine of compromise is here far too great to be justified by the value of all that is left in the clause. It is hardly conceivable that this part of the Bill will not be greatly strengthened in Committee, especially as county councils are intended to have the power to restrict their regulations to particular districts. The whole section should form a complement to the Housing of the Working Classes Act, and should in all respects be framed so as to operate in entire harmony with that Act.

It is a standing grievance of the medical officers of the northern kingdom that whether or not they are to be furnished with regular returns of births and deaths depends wholly on the goodwill of the local registrars, and that, as a matter of fact, many registrars refuse to make such returns on such terms as are fixed by law in England. This also will be remedied if the new Bill becomes law; but might we be allowed to say a word for the registrars of small rural districts whose fees under the terms as laid down in the Bill might only amount to four or five shillings a year? Surely a monthly or annual minimum could be fixed which would make it worth the registrar's while to keep in mind his monthly or quarterly duty of sending perhaps a blank sheet to the health officer.

Clause 11 deals with dairies, and is of much importance. The control which local authorities have over milk-supply is at present indefinite and unsatisfactory. Under the Dairies Orders various sets of by-laws, more or less stringent, have been agreed to and issued by sanitary boards all over the country. In connexion, however, with an action raised by the town council of Edinburgh it was lately shown that such by-laws may readily be *ultra vires* of the bodies enacting them, and if the Orders under which by-laws are made were themselves extended in their scope they in their turn might be held to be *ultra vires* of the Acts of Parliament under which they are made. It is, therefore, highly desirable that such powers as sanitary authorities are intended to possess should be placed at their disposal in clear and unambiguous fashion. Clause 11 of the Bill is, with some modification, similar to Clause 71 of the Public Health (London) Act of 1891. It provides that where a medical officer has evidence of infectious disease in his district attributable to milk supplied from a dairy *within or without the district* he shall have the right of inspection, and that if as a result of inspection he forms the opinion that infectious disease is caused by, *or is likely to arise from*, consumption of the milk he shall report to his local authority, who may then call on the dairyman to show cause why an order should not be made requiring him temporarily to cease supplying milk within the district of the local authority. There is no doubt that small rural authorities tend to be negligent of dairy supervision, and that the consequences of their negligence are often primarily felt, not in the district in which a dairy is situated, but in the district in which the milk is sold. In these circumstances it is probably right that London sanitary authorities should have power to go outside London to examine country dairies from which milk is sent to them and where suspicion of disease-conveyance exists. It seems likely, however, that very many of such dairymen will be in the habit of sending milk only to the district of a single metropolitan authority, so that this right of supervision will fall to be exercised by only one body outside the dairyman's own district. But in Scotland we can understand that the case may often be different. There the districts in which the dairies are situated are those under the charge of the district committees of county councils, and, as a rule, consist of large areas with active local authorities and a proper staff of officials. On the other hand, the districts within which the milk is sold may be small burghs, scattered throughout the country districts, but having local authorities of their own entirely independent of the county council. Milk from one large dairy farm may be sent to several of these burghs, and, in this way, it seems possible that a dairyman might be put under the control of a variety of public bodies, perhaps with divergent views and different dairy regulations, and perhaps also ill qualified to look after their own sanitary affairs, let alone the sanitary affairs of the district committees of county councils. There is not much fear that the health departments of large cities like Glasgow, Edinburgh, Aberdeen, &c. would act unreasonably regarding dairy farms outside their own districts, though, no doubt, they would insist on proper precautions against risk of disease conveyance. But as to small burghs there could be no such certainty. After all, a dairyman has rights as well as obligations in this world, and it does seem as if hardship might arise from his being called on to fulfil the various demands of various authorities, who might be led by the deficiencies of their preventive arrangements to make altogether unjustifiable demands on outsiders. Perhaps Clause 11 might work well enough in practice, and such contingencies as are here indicated might seldom become actualities. But the fact that such a clause is proposed points to two conclusions—one that county committees, if they wish to retain full control over their own districts, must see that the dairies under their charge are thoroughly in accordance with the requirements of modern sanitary knowledge; and the other that small burghs should for health purposes be incorporated with the county district in which they are situated. In this connexion it is satisfactory that the present Bill does not include Section 63 of last year's Bill, which was among those not then passed into law. Section 63 tended to the total administrative dissociation of small burghs from the country districts. No doubt at present the relationship is unsatisfactory; but the remedy is to be found, not in separation, but in combination, more or less complete, for all public health purposes.

On the whole the present Bill is a good one and ought to become law, but it ought not to pass through the Grand Committee without such questions as are here raised being well and carefully considered.

MR. GERALD BALFOUR, M.P., will preside at a meeting to consider the work of the Metropolitan Provident Medical Association at 12, Portman-square, London, to-day (Friday), at 4.30 P.M. He will be supported by Lord Battersea, the Rev. Canon Ainger, Sir J. Russell Reynolds, Mr. Lewis McIver, M.P., and others.

METROPOLITAN HOSPITAL SUNDAY FUND.

THE following are some of the principal amounts received at the Mansion House, the lists of which have been received at THE LANCET Office, up to the time of our going to press on Thursday, when the total amounted to nearly £15,000. The total sum recorded at the corresponding period last year was £14,000 :—

	£	s.	d.
St. Michael's, Chester-square (Archdeacon Fleming)	1174	9	0
Westminster Abbey (Dean of Westminster)	228	0	0
St. Paul's Cathedral	283	17	8
Chapel Royal Savoy	16	0	0
St. Margaret's, Westminster (Ven. Archdeacon Farrar) ...	161	1	11
Spurgeon's Tabernacle	80	0	0
Metropolitan Tabernacle (Rev. Thos. Spurgeon)	130	0	0
St. George's, Bickley (Rev. R. Wood)	70	3	3
Christian Evidence Society, East London Branch	44	0	0
St. Saviour's, Clapham (Rev. C. P. Green)	27	17	3
St. Saviour's, Southwark (Rev. W. Thompson)	24	8	4
All Saints, North Peckham (Rev. W. R. Finlay)	45	4	6
St. George's, Beckenham (Rev. H. Arnott)	71	2	1
St. Mary's, Shortlands (Rev. H. F. Welley)	42	7	7
St. Philip's, Sydenham (Rev. A. E. King)	35	0	0
Mr. H. Trower	21	0	0
St. John Baptist, Eltham (Rev. W. J. Sowerby)	31	11	3
Trinity Presbyterian Church, Notting-hill	35	12	7
Mr. J. J. Randolph (further)	25	0	0
Major Jones (further)	20	0	0
Miss Edith Wright	35	0	0
Christ Church, Lancaster-gate (Rev. C. J. Ridgeway) ...	1150	16	11
St. John's Presbyterian Church, Kensington	120	0	0
St. Luke's, Redcliffe-square (Rev. Evan Hopkins)	50	0	0
St. Anne's, Wandsworth (Rev. N. Campbell))	27	12	5
St. Thomas's, Regent-street...	44	0	10
New Court Chapel, Tollington-park	25	5	9
Betchworth Parish Church (Rev. C. E. Sanders)	21	14	3
Messrs. Marks, Bulteel, Mills, and Co.	31	10	10
Merton Parish Church (Rev. E. A. Kempson)	34	18	3
St. John Evangelist, Stanmore	43	15	0
Finchley Parish Church (Rev. W. E. Batty)	34	11	10
Emmanuel Church, Wimbledon	61	3	10
St. James, Marylebone (Rev. H. R. Haweis)	25	0	0
Christ Church, Wanstead (Rev. M. Drummond)	25	8	9
Mr. W. T. Blandford (further)	20	0	0
All Saints, Kingston-on-Thames (Rev. A. S. W. Young) ...	25	0	0
Hendon Parish Church (Rev. N. Mant)	41	6	1
Bromley (Kent) Parish Church (Rev. A. G. Hellicar) ...	66	0	0
Archway-road Wesleyan Chapel (Rev. J. Banham)	38	6	3
St. Peter's, Norbiton, Surrey (Rev. J. Rooker)	19	1	2
St. Mary of Eton, Hackney Wick	8	18	9
West Drayton Parish Church (Rev. A. W. S. A. Ross) ...	4	11	7
St. Stephen's, North Bow (Rev. H. A. Mason)	14	5	3
The Magdalen Hospital, Streatham, S.W. (Rev. W. Watkins)	40	0	0
Emmanuel Church, Camberwell (Rev. A. C. Lucey)	5	15	0
St. John the Evangelist, Brixton (Rev. H. G. Dukinfield Astley)	26	15	5
St. John's, Sidcup (Rev. Shirley Woolmer)	23	14	4
All Saints, Hatcham-park (Rev. E. S. Fardell)	46	0	0
Merstham, Surrey (Rev. R. Woodhouse)	7	7	0
St. Dominic's Priory, Haverstock-hill (Rev. Fr. Austin M. Rooke)	16	15	6
North Ockendon Church (Rev. R. T. Crawley)...	7	0	5
All Saints, Woolwich (Rev. J. W. Morris)	16	19	11
Christ Church, Coldharbour, Dorking (Rev. J. Rooker) ...	12	17	10
Gonville and Caius College (Cambs.) Mission, Battersea (Rev. W. B. L. Hopkins)	9	4	9
St. Mary Magdalene, Peckham (Rev. T. Goss)	36	7	6
St. Mary of the Angels, Bayswater (Rev. F. M. Wyndham)...	12	0	0
Wesley's Chapel, City-road (Rev. J. Brown)	15	0	0
The Theistic Church, Swallow-street (Rev. Chas. Voysey) ...	125	6	3
Greenwich Hospital Chapel	6	4	8
Stepney Meeting House	12	1	0
,, ,, ,, M.S.U.	1	12	9
All Saints, Chigwell row (Rev. G. H. Hopkins)	7	18	0
St. Faith's, Wandsworth (Rev. R. Taylor)	10	4	0
Temple Congregational Church, St. Mary's Cray (Ed. Grimes)	19	19	2
Christ Church, Battersea (Rev. E. A. Cartwright)	7	10	0
Holly-park Wesleyan Church, Crouch-hill (F. B. Cowl) ...	27	13	0
St. John's, Highbury-vale (Rev. A. W. Gough)	24	6	1
Mercers' Chapel, Cheapside (Rev. A. Veysey)	12	0	0
St. Paul's, Tottenham (Rev. A. O'B. Brandon)...	5	17	6
St. Margaret's, Lothbury (Rev. E. V. Hoare)	56	18	11
St. Paul's, Upper Holloway (Rev. J. Piper)	20	1	0
Harley-street Congregational Church, Bow (Rev. G. B. Ryley)	14	9	4
Holy Trinity, Tulse-hill (Rev. E. L. Roxby)	139	18	4
Presbyterian Mission, Granville-road, N.W. (Rev. T. Finlayson Durroch)	21	2	0
St. John the Evangelist, Westminster (Rev. C. Aires) ...	40	0	8
St. Saviour's, Battersea (Rev. Dr. Rice)	7	15	4
St. Catherine's Leytonstone (Rev. J. Kennedy)	9	4	8
St. George's Cathedral, Southwark (Rev. James Keatinge)	11	5	0
St. Silas, Penton-street, N. (Rev. R. Leach)	7	9	0
St. Matthews, Upper Clapton (Rev. J. Byron)	44	1	8
St. Nicolas, Brockley (Rev. Embledon Thomas)	5	3	9
Christ Church, Hornsey (Rev. J. Brand)	56	1	1
St. Saviour's, Champion-hill	30	0	0
St. Chrysostom's, Peckham (Rev. H. E. Bickwell)	15	16	7
St. Peter's, De Beauvoir Town (Rev. C. J. Finch)	6	5	8
Clifton Congregational Church, Peckham (W. H. Elliott) ...	8	15	11
St. Paul's, Charlton (Rev. H. R. Gabbett)	19	0	0
St. John's Isleworth (Rev. S. B. Gordon Stokes)	10	12	4
St. Saviour's, Tollington-park (Rev. A. J. Ard)	16	3	6
Christ Church, Beckenham (Rev. J. Harding)...	37	8	6
Mitcham Church (Rev. D. F. Wilson)	72	19	0
The Oratory, South Kensington (Rev. W. Gordon)	54	6	0
The Vicarage, Ilford (Rev. H. W. E. Molony)	28	7	11
Morden College, Blackheath (Rev. H. Lansdell)	7	10	6
Christ Church, Southgate (Rev. Cyril F. Wilson)	43	3	3
Harrow Weald Church (Rev. W. H. Peers)	18	3	3
All Saints', Friern Barnet (Rev. H. S. Miles)	43	4	5
St. Peter-ad-Vincula, Tower, E.C. (Rev. C. A. Solbé) ...	15	0	0
Christ Church, Rotherhithe (Rev. St. Martyn Bardsley) ...	15	9	1
Church of Our Lady, Sydenham-road (Rev. F. Minnett) ...	7	11	9
Dulwich College Chapel (Rev. G. W. Daniell)	56	19	0
Holy Trinity, St. Marylebone (Rev. R. F. Hungen)	78	15	0
St. Crispin's Vicarage, Bermondsey (Rev. J. Wallace) ...	7	2	0
St. Mary's and St. Andrew's, Acton (Rev. F. D. Sturgess) ...	38	17	3
All Saints, Westbrook, Margate (J. H. G. Randolph)... ...	8	7	3
St. Dunstan's-in-the-East (Rev. F. A. P. Shirreff)	6	11	10
Devonshire-road Strict Baptist Chapel, Greenwich (Rev. S. Boorne)	7	4	2
Northwood Church, Middlesex (Rev. J. R. Garrett)	10	12	9
Christ Church, Lower Sydenham (F. H. Francis)	16	4	7
St. Michael's, Lower Sydenham (F. H. Francis)	5	5	10
Christ Church, Oxford, Mission, Poplar (Rev. W. A. Carroll)	7	5	9
West Wickham Church (Rev. H. B. Roberts)	31	16	1
Aldenham Church, Watford, Herts (Rev. Kenneth F. Gibbs)	50	0	0
Hampstead Parish Church (Rev. S. B. Burnaby)	58	13	1
Nutley Lane Church, Reigate (Rev. Ed. J. Baber)	16	15	9
St. Jude's Vicarage, Bethnal-green (Rev. W. H. Davies) ...	5	17	0
St. Thomas's, Northaw, Herts. (Rev. E. B. B. Kitson) ...	11	6	0
Hillingdon Parish Church (Rev. E. S. Smith)	16	15	5
Christ Church, Enfield (Rev. W. Warren)	7	13	0
All Saints, Clapham-park (Rev. A. G. Girdlestone)	68	8	9
All Saints, Child's-hill, N.W. (Rev. W. D. H. Petter) ...	20	1	1
St. Stephen's, Spitalfields (Rev. A. Allen)	7	14	0
Christ Church, Warley, Essex (Rev. H. A. Banes)	7	4	0
Christ Church, Stepney (Rev. G. B. O. Rich)	7	14	0
St. Stephen's, Hounslow (G. H. Layton)	16	0	2
Parish Church, Ewell (Rev. J. Thurston)	21	0	11
All Saints, Ewell (Rev. J. Thurston)	7	3	1
North Cray Church (Rev. H. W. J. Johnston)	8	8	0
St. Mary's, Paddington (Rev. A. Scott)	13	12	4
Merton Parish Church (Rev. E. A. Kempson)	33	18	3
St. Mary's Mission Hall (Rev. E. A. Kempson)...	3	10	1
St. Paul's, Covent-garden (Rev. S. T. Cumberlege)	10	16	0
Lion Brewery Company	105	0	0
Delta (a further)	200	0	0
Mr. J. B. Lubbock	20	0	0
Mr. Fred. Druce (a further)	25	0	0
Mr. C. W. Rudd	100	0	0
Mr. Arthur James	100	0	0
Mr. James Johnston (a further)	5	0	0
Lord Hindlip	20	0	0
Miss Emily Old (a further)	25	0	0
F. G. D. (a further)	50	0	0
Holy Trinity, Bromley (Rev. F. W. Haines)	8	0	0
St. Philip's, Regent-street (Rev. H. Jones)	40	10	9
Christ Church, Mayfair	135	8	7
Curzon Chapel, Mayfair (Rev. J. F. Bennett)	159	0	0
St. James's, Paddington (Rev. W. Abbott)	131	1	0
St. Peter's, Brockley	114	0	0
St. Peter's, Vere-street (Rev. W. Page Roberts)	382	1	6
St. Saviour's, Paddington	107	2	8
Effra-road Unitarian Church	112	0	0
St. James's, Piccadilly...	100	13	1
St. James's, West Hampstead	286	2	10
St. Mary's, Bryanston-square	220	5	9
St. Paul's, Knightsbridge (Rev. H. M. Villiers)	317	13	6
St. James's, Kidbrook	100	16	2
St. James's, Clapham Park	111	4	11
St. Stephen's, Wandsworth	71	16	0
St. James's, Muswell Hill	51	12	2
St. Gabriel's, Pimlico	69	16	8
Hampstead Parish Church	68	13	1
St. Luke's, Chelsea	73	13	0
Church of the Annunciation, Chislehurst (Canon Murray)	88	6	6
St. Thomas's, Portman-square	69	0	5
St. Paul's, Onslow-square (Rev. H. Webb Peplo)	300	0	0
Upper Tooting Wesleyan Chapel	21	17	1
St. Luke's, Homerton	22	16	2
St. Jude's, East Brixton	33	2	8
Trinity Presbyterian Church, Hampstead	33	0	0
Christ Church, Westminster Bridge-road	53	13	0
Keston Parish Church	22	18	8
Finsbury-park Wesleyan Chapel	20	19	0
St. John Evangelist, Brixton	26	15	5
Mitcham Parish Church	35	3	8
Holy Trinity, Lee	26	19	0
St. Augustine's, Honor Oak	40	2	11
Thames Ditton Parish Church	21	10	3
St. Mary's, Brookfield, Highgate	27	14	3
St. Mary's, Spring-grove	34	4	6
Holy Trinity, Blackheath Hill	37	0	8
Box outside the Mansion House	38	2	4

Other amounts have been received and will be published in our next issue.

THE AFFILIATED BENEFIT NURSING ASSOCIATIONS.

THESE associations held their second annual conference on Thursday, June 6th, at the residence of Lord Egerton of Tatton, St. James's-square, Dr. Holman being in the chair. Miss Broadwood reported the year's work done through their Office and Registry, 12, Buckingham Palace-road: 68 cottage nurses had been trained, 31 of them at Plaistow; 10 nurses not specially trained for cottage work were permanently placed, and 42 others on job, those specially trained being the most satisfactory. Nine addresses had been delivered, 2771 letters received, and 2925 letters and pamphlets despatched. A year ago 58 associations were working on the Holt-Ockley system started in 1883; now there were 70 stretching from Land's End to John-o'-Groat's House, and others were forming; 53 had affiliated. The question of how far their cottage nurses did, and might, act in maternity cases without the aid of medical men had been raised and investigated. Their medical advisory committee were satisfied that it was not a common practice. While averse to supplying midwives except with the assent of local practitioners, they must aim at, as heretofore, their cottage nurses knowing how to act if the medical man failed to arrive in time.

Dr. Holman congratulated them on the flourishing state of their associations. The object was backed up by political economy, by common humanity, and by Christianity; and because its principles were sound it must prosper, grow, and spread, as the other association with which he was connected had spread beyond the United Kingdom into the Colonies. A central office in London where all could meet was absolutely necessary. He rejoiced that the question of monthly nurses had been discussed. Dr. Boxall and himself had been in the forefront of the fight about midwives. The original opinion was to punish any nurse who attended a labourer without a medical practitioner. He had known countrywomen to suffer terribly from neglect during the hours that it took the husbands to hunt up the relieving officer and then the parish medical practitioner. Was it not better to train cottage nurses to be useful in such cases? Midwifery was a burning question at this moment, and he hoped they would do their best to get the Midwives Registration Bill passed in the House of Lords.

Dr. Robert Boxall said the benefit which these associations confer upon the poorer classes in country districts was immense, and it was with the greatest pleasure that he acted upon their advisory committee. Midwifery and midwives involved a difficult matter to deal with. They might all have ideals as to what should or should not be done, but they must look upon cases from a practical point. Considering the number of lying-in cases throughout the kingdom, the difficulty of obtaining sufficient attendance was very great. There was a very great difference between the duties of a nurse and of a midwife. The nurse was engaged, as a rule, to attend a case under the control of a medical man, but a midwife attends without such direct control. It is much easier for a midwife to recognise difficulties and dangers than for a nurse to do so; midwives are taught to make certain examinations which the nurse is not trained to make. In making such examinations it is possible, quite unwittingly, to do an infinity of mischief; the nurse is not given training to enable her to distinguish, and for that reason it seemed to him scarcely fair to impose upon a nurse these duties. These benefit associations would be in a false position if they allowed nurses to attend cases where neither a midwife nor a medical man was engaged. The medical man may know from experience what some individual nurse is capable of doing, and may leave her to act alone; but *then* he takes the responsibility upon himself. On the other hand, many cases of emergency might arise in which it would be absolutely essential that the nurse should have sufficient knowledge to act alone without competing with the medical practitioner or midwife; and unless the nurse had been taught to deal with such cases grave injury to mother and child might ensue. What would they say if the captain of a ship were incapacitated and no petty officer or seaman were ready to take his place and to do his best to navigate the ship into port?

Mr. J. Bickersteth explained how well the benefit system worked in the Wilton Beacon District of Yorkshire, where they had 23 agricultural parishes and only 3 resident gentlemen. Their cottage nurses were drawn from the general-servant class of the neighbourhood and were trained at Plaistow, or the City of London Lying-in Hospital, and were prepared to do the work of the cottage when the mother was ill.

The Viscountess Galway and Miss Whitmore-Jones, organising secretary for the south-west of England, bore testimony to the equally satisfactory working of the associations in Oxfordshire, Gloucestershire, and Nottinghamshire.

THE ANNUAL DINNER OF THE ARMY MEDICAL STAFF.

THE annual dinner of the Army Medical Staff was held at the Whitehall Rooms of the Hôtel Métropole, on June 17th, and was in every way a successful function.

The company numbered seventy-five, and included the—

Director-General: Surgeon-Major-General Sir W. A. Mackinnon, K.C.B. (who presided).

Surgeon-Major-Generals: Sir Joseph Fayrer, K.C.S.I., C. H. Giraud, R. Harvey, D.S.O., J. Jameson, E. C. Markey, C.B., H. F. Paterson, J. B. C. Reade, C.B., J.J. Thompson, and J. Warren.

Surgeon-Colonels: O. Codrington, W. G Don. E. McGrath, W. S. Price, F. B. Scott, C.M.G., W. Sly, H. Veale, and J. Watts.

Brigade-Surgeon-Lieutenant-Colonels: J. A. Anderson, A. L. Browne, J. D. Edge, E. Fairland, W. J. Fawcett, J. Hector, J. G Leask, C. Mackinnon, W. McWatters, T. R. Mould, J. L. Notter, W. S. Pratt, A. B Robinson, W. G. Ross, W. F. Ruttledge, W. F. Stevenson, W. Temple, V.C., E. D. Tomlinson, W. J. Wilson, and T. Wright.

Surgeon-Lieutenant-Colonels: J. Coats, J. J. Crean, P. R. Gabbett, W. C. Gasteen, J. J. Greene, E. H. Joynt, G. D. N. Leake, G. H. Le Mottée, T. Ligertwood, and R. Smith.

Surgeon-Majors: W. G. A. Bedford, W. A. Carte, H. Grier, R. J. D. Hackett, R. P. Hetherington, A. A. Lyle, W. G. Macpherson, R. Porter, M. R. Ryan, R. J. S. Simpson, C. R. Tyrrell, and G. E. Twiss.

Surgeon-Captains: J. G. Deacon, J. S. Edye, H. P. Elkington, C. E. Faunce, J. Fayrer, H. Hore, J. Moir, M. W. Russell, and M. T. Yarr.

The following guests were present: Mr. Christopher Heath, the President of the Royal College of Surgeons of England; Brigade-Surgeon-Lieutenant-Colonel Hooper, the President of the Indian Medical Board; Mr. E. Hart, Mr. Vesey Holt, and Dr. S. Squire Sprigge.

Sir J. Russell Reynolds, the President of the Royal College of Physicians of London, and Sir J. N. Dick, K.C.B., the Director-General of the Medical Department of the Royal Navy, were unavoidably prevented from attending.

The arrangements for the dinner, which were made by Brigade-Surgeon-Lieutenant-Colonel J. Hector, honorary secretary, A.M.S. Annual Dinner Committee, left nothing to be desired. But more than seventy-five persons should muster on such an occasion, and in particular more of the younger members of the department. Such meetings do much good by cementing cordial relations already existent, leading to the formation of friendships, and displaying the strength of the department; and we would urge upon the younger members of the Army Medical Staff, many of whom must be stationed in immediate proximity to London, the advisability upon future occasions of devoting an evening to enjoying themselves in the company of their fellow officers.

UNITED HOSPITAL SPORTS.

PROBABLY the threatening aspect of the weather in the early part of the day was answerable in a great measure for the smallness of the gathering on Wednesday last, when the twenty-ninth annual meeting of the United Hospitals Athletic Club was held on the London Athletic Club grounds at Stamford Bridge. When the contests commenced, however, at three o'clock the weather looked more hopeful, and the sun shone brightly throughout the progress of the sports. The track was in fine condition.

Mr. H. T. Bell of Guy's, who last year carried off the 100 yards challenge cup for the third time in succession, passed

his laurels to Mr. H. C. Woodyatt, but almost succeeded in regaining them for the High Jump (which he lost last year after two previous victories) by making a dead heat with C. B. Adams of Middlesex. The one-mile and three-mile challenge cups were for the fifth time in succession carried off by Mr. H. A. Munro of Guy's, and Mr. E. N. Scott of the same school was successful in the hammer-throwing contest for the third time. Mr. W. F. Bennett, who represents St. Bartholomew's, succeeded in outdoing his last year's performance with the shot, and in the 120 yards hurdle race Mr. J. Johnson, who held the cup last year for St. Bartholomew's with a record, came in level with Mr. H. N. Coltart of St. George's. The long jump went to St. Mary's after being held for two years by Guy's. Mr. C. E. H. Leggatt succeeded in beating Mr. H. T. Bell. The 220 yards went to University College Hospital, and the quarter-mile to St. Mary's, as did also the half-mile, both being won by the same competitor.

100 Yards: H. C. Woodyatt (University), 10⅘ sec. Half Mile: A. G. Butler (St. Mary's), 2 min. 0⅘ sec. Putting the Shot: W. F. Bennett (St. Bartholomew's), 35 ft. 10 in. 120 Yards Hurdle Race: J. Johnston (St. Bartholomew's) and H. N. Coltart (St. George's), dead heat, 16⅖ sec. 220 Yards: H. C. Woodyatt (University), 23 sec. High Jump: H. T. Bell (Guy's) and C. B. Adams (Middlesex), tie, 5 ft. 7½ in. Throwing the Hammer: E. N. Scott (Guy's), 85 ft. 11 in. One Mile: H. A. Munro (Guy's), 4 min. 31⅘ sec. Long Jump: C. E. H. Leggatt (St. Mary's), 20 ft. 11¼ in. Quarter Mile: A. G. Butler (St. Mary's), 59⅖ sec. Three Miles: H. A. Munro (Guy's), 15 min. 29⅖ sec.

A three-mile bicycle race, not included in the contest for the shield, was won by Mr. J. Burke of St. George's, and a 1000 yards handicap, in which Mr. E. C. Bredin made an attempt, though unsuccessfully, to break the record, was won by Mr. E. J. Wilkins with twenty-four yards start.

The championship therefore goes to Guy's Hospital.

The prizes were distributed by the Countess of Egmont, and during the afternoon the London Victoria Military Band gave a selection of music.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

Diphtheria at Long Benton, near Tynemouth, by Dr. R. D. SWEETING.—This report raises a number of interesting considerations in connexion with the etiology of diphtheria, although it does not succeed in elucidating many of the problems which the actual outbreak involved. It deals with 77 attacks of diphtheria and 22 deaths on a population of some 10,000; but, as so often happens, there were a number of minor manifestations of throat disease, a number of which probably had the infective qualities of diphtheria. Two attacks, including the first one recognised, were apparently associated with manure nuisances. The first one was rather typical of occurrences such as have been reported by Dr. Thresh and others. A boy who is stated to have been peculiarly liable to sore-throat was in the habit of riding on a manure cart conveying very offensive refuse from Byker, near Newcastle, and locally his illness was attributed to the manurial emanations. As has happened again and again, it was difficult to eliminate all other sources of infection, and the matter must still remain in doubt. One thing, however, was certain—namely, that school operations tended to the spread of the disease. The clerk to the School Board maintained the contrary, and declared that it was the local insanitary conditions that had produced the evil, and he objected to the attitude of the sanitary authority in requiring school closure. But Dr. Sweeting could find no support for his view; no sanitary circumstances could be found to account for the incidence of the disease; on the contrary, modern well-constructed hamlets &c. suffered as much as others, and elsewhere houses that were attacked and houses that remained free from attack in no way differed from a sanitary point of view. And when the influence of school closure and the consequent arrest of aggregations of school children came to be worked out it was found that in two periods of school operations, extending over 191 days, there had been 67 attacks, whereas in two immediately following periods of 61 days of school closure there were only 8 cases; indeed, in one period of 32 days directly after the school had been closed there was only one solitary case, but instantly on reopening 41 cases occurred in the next ensuing 69 days. Naturally Dr. Sweeting supports the school restrictions imposed by the sanitary authority.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

St. Marylebone Urban Sanitary District.—Mr. Wynter Blyth, in giving in his current annual report a brief *résumé* of the two outbreaks of small-pox which occurred in his district, speaks highly of the value of establishing a local administrative centre during the periods of the outbreaks. The great lesson, however, which these outbreaks have impressed upon him is the necessity for prompt removal to hospital. If, he observes, every case of small-pox were early diagnosed and removed, no spread of the disease would be possible. Unfortunately the first condition is a difficult one to realise, though we imagine that the opportunity of studying small-pox, which the prevalence of the disease in recent years has afforded, will do something to improve matters, as also will the excellent clinical teaching provided at the hospitals of the Metropolitan Asylums Board. Mr. Wynter Blyth also reports that the good influence of vaccination and revaccination was well illustrated in the outbreaks, and the guardians, he tells us, rendered most efficient help in affording facilities for revaccination. The outbreak, he states, was never satisfactorily stamped out, and he thinks that the failure to effect this was due in part to the non-disinfection of certain articles of apparel. Persons with only one suit of clothing were, it appears, in constant attendance upon patients for from twenty-four to forty-eight hours, and owing to their having no change of clothing, and there being no shelter in the district, disinfection &c. could not be performed. Apparently, however, this defect in the St. Marylebone sanitary equipment has now been remedied. Out of 141 cases of enteric fever notified during 1894, 27 were imported, 17 coming from other metropolitan districts, 6 from the provinces, and the remainder from abroad—i.e., from Paris, New York, and even Buenos Ayres. Commenting upon the several agents likely to convey typhoid fever, Mr. Wynter Blyth remarks that, notwithstanding the report of the Royal Commission, the possibility of the Thames water being at times inefficiently filtered, and of the specific organisms being distributed by the water, cannot be denied. On working out, however, the incidence-rate of typhoid fever per 1000 of the population in each metropolitan district during 1894, and apportioning to each district its own water-supply, he observes that the list shows too many anomalies to suggest that any one of the companies was supplying grossly polluted water. The rates, it may be observed, varied from 1·33 in Poplar and St. George-in-the-East, both supplied by the East London Water Company, to 0·47 in Fulham, which is supplied by the West Middlesex and Chelsea Companies. The rates in Lewisham and Greenwich, supplied by the Kent Company, were 0·65 and 1·01 respectively. We trust that Mr. Wynter Blyth will continue these analyses in his future reports, and we would suggest that the monthly rates would be interesting.

Shoreditch Urban Sanitary District.—As we have occasionally drawn attention to "return" cases of scarlet fever, it is only fair that the negative side of the question should be recorded. Dr. Fraser Bryett relates that although there were 487 cases of scarlet fever notified in his district during 1894, and 65 per cent. were treated in fever hospitals, no "return" cases were brought to his notice. This speaks well, Dr. Bryett observes, for the care exercised by the fever hospital authorities. The shelter provided in Branch-place was utilised during the year on sixteen occasions, and fifty persons took advantage of its existence. The public, Dr. Bryett states, show some disinclination to make use of the shelter, but he has not found it impossible, by the exercise of tact, to overcome their objections. Frequent complaints were made during the summer months of 1894 as to the deficiency in the water-supply and the cessation of the constant service, and the Sanitary Committee finally determined to communicate with the County Council with a view of obtaining, under the Metropolitan Water Act, 1871, a constant supply of water. In reporting as to bakehouses Dr. Bryett tells us that out of ninety-three bakehouses in his district fifty-six are underground, twenty-nine above ground, and the remaining eight partly underground. Of those underground 62·5 per cent. were efficiently lighted and ventilated. Insufficient watercloset accommodation is frequently met with in the factories and workshops of Shoreditch. In discussing the question of smoke prevention Dr. Bryett states that the services of a practical engineer have at times been employed

with good results, and he advises that some such person be engaged permanently by the sanitary authority to deal with smoke nuisance. It is certainly true that many sanitary inspectors are not so well versed in the matter of smoke prevention as they might be.

Lexden and Winstree Rural Sanitary District.—Dr. J. W. Cook has (as pointed out by him in a letter published in our columns on June 1st) been instrumental in providing this district with a portable fever hospital, designed by himself. It consists of two Radcliffe double tents with boarded floors, each tent containing four beds. There is in addition a bell tent with beds for two nurses, and a large van on four wheels. The van is fitted up as a kitchen and has provision for a hot-water supply. The floor-boards for the tent are carried in a separate waggon, but apart from these everything appertaining to the hospital is stored in the van. The whole hospital can be transferred to any part of the district and in less than two hours can be erected and made ready for the reception of patients.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6861 births and 3130 deaths were registered during the week ending June 15th. The annual rate of mortality in these towns, which had declined in the five preceding weeks from 17·7 to 15·5 per 1000, further fell last week to 15·4. The lowest rates in these towns were 10·5 in Burnley, 10·7 in Portsmouth, 10·9 in Croydon, 11·4 in Sunderland, and 11·7 in Cardiff; the highest rates were 19·2 in Blackburn, 20·5 in Plymouth and in Salford, 21·3 in Manchester, 23·6 in Bolton, and 23·8 in Liverpool. The 3130 deaths included 399 which were referred to the principal zymotic diseases, against 349 and 294 in the two preceding weeks; of these, 133 resulted from measles, 77 from diarrhœa, 73 from diphtheria, 60 from whooping-cough, 28 from scarlet fever, 23 from "fever" (principally enteric), and 5 from small-pox. No fatal case of any of these diseases occurred last week in Sunderland; in the other towns they caused the lowest death-rates in Bradford, Portsmouth, Croydon, and Gateshead, and the highest rates in Cardiff, Liverpool, Manchester, West Ham, and Plymouth. The greatest mortality from measles occurred in Liverpool, Bolton, Manchester, Plymouth, and West Ham; from whooping-cough in Birkenhead and in Huddersfield; from "fever" in Norwich; and from diarrhœa in Plymouth and Blackburn. The mortality from scarlet fever showed no marked excess in any of the thirty-three large towns. The 73 deaths from diphtheria included 45 in London, 6 in Liverpool, 4 in Birmingham, and 3 each in West Ham, Manchester, and Hull. Three fatal cases of small-pox were registered in Derby, 1 in London, and 1 in Oldham, but not one in any other of the thirty-three towns. There were 19 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, the 15th inst., against 29, 22, and 23 at the end of the three preceding weeks; 2 new cases were admitted during the week, against 7, 1, and 5 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1637, against 1503, 1524, and 1589 on the three preceding Saturdays; 199 new cases were admitted during the week, against 214, 187, and 179 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 193 and 163 in the two preceding weeks, further declined to 152 last week, and were 88 below the corrected average. The causes of 54, or 1·7 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Cardiff, Bradford, Leeds, Oldham, and in twelve other smaller towns; the largest proportions of uncertified deaths were recorded in Bristol, Birmingham, Leicester, Liverpool, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 21·4 and 19·7 per 1000 in the two preceding weeks, further declined to 17·1 during the week ending June 15th, but was 1·7 per 1000 above the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 14·2 in Leith and 15·5 in Aberdeen to 18·4 in Greenock and 30·9 in Perth. The 492 deaths in these towns included 25 which were referred to diarrhœa, 14 to measles, 12 to whooping-cough, 3 to scarlet fever, 3 to diphtheria, 1 to "fever," and not one to small-pox. In all, 58 deaths resulted from these principal zymotic diseases, against 60 and 57 in the two preceding weeks. These 58 deaths were equal to an annual rate of 2·0 per 1000, which corresponded with the mean rate last week from the same diseases in the thirty-three large English towns. The 25 fatal cases of diarrhœa corresponded with the number recorded in the preceding week, and included 11 in Glasgow and 6 in Dundee. The deaths referred to measles, which had been 12 in each of the two preceding weeks, were 14 last week, of which 5 occurred in Glasgow and 4 in Edinburgh. The fatal cases of whooping-cough, which had been 17 and 11 in the two preceding weeks, were 12 last week, and included 6 in Glasgow, 2 in Edinburgh, and 2 in Aberdeen. The 3 deaths from scarlet fever were within one of the number in the preceding week, and included 2 in Glasgow. The fatal cases of diphtheria, which had been 3, 8, and 1 in the three preceding weeks, rose again to 3 last week, of which 2 occurred in Edinburgh. The deaths referred to diseases of the respiratory organs in these towns, which had been 118 and 112 in the two preceding weeks, further declined to 87 last week, and were slightly below the number in the corresponding week of last year. The causes of 39, or nearly 8 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had declined in the three preceding weeks from 28·5 to 22·1 per 1000, rose again to 23·1 during the week ending June 15th. During the past eleven weeks of the current quarter the death-rate in the city has averaged 28·4 per 1000, the rate during the same period being 16·9 in London and 18·9 in Edinburgh. The 155 deaths registered in Dublin during the week under notice showed an increase of 7 upon the number in the preceding week, and included 8 which were referred to the principal zymotic diseases, against numbers increasing from 5 to 11 in the four preceding weeks; of these, 4 resulted from "fever," 3 from whooping-cough, 1 from diphtheria, and not one either from small-pox, measles, scarlet fever, or diarrhœa. These 8 deaths were equal to an annual rate of 1·2 per 1000, the zymotic death-rate during the same period being 2·1 in London and 1·9 in Edinburgh. The deaths referred to different forms of "fever," which had been 1 and 2 in the two preceding weeks, further rose to 4 last week, a higher number than in any week since the end of March last. The 3 fatal cases of whooping-cough also showed a further increase upon the numbers recorded in recent weeks. The 155 deaths registered in Dublin last week included 19 of infants under one year of age, and 26 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a further decline from the numbers recorded in recent weeks. Five inquest cases and 3 deaths from violence were registered; and 55, or more than a third, of the deaths occurred in public institutions. The causes of 10, or more than 6 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

MOVEMENTS OF THE MEDICAL STAFF.

SURGEON-CAPTAIN DODD has been transferred from Woolwich to Aldershot and appointed Assistant Instructor at the Depôt of the Medical Staff Corps. Surgeon-Captain Gray has been posted to Dublin on return from foreign service. The following officers have arrived in England on leave of absence: Surgeon-Lieutenant-Colonel Edge and Surgeon-Captain Copeland from India, and Surgeon-Captain Rowan from Malta.

INDIA AND THE INDIAN MEDICAL SERVICES.

The following appointments are announced:—Surgeon-Major H. C. Hudson, Bengal Establishment, to officiate as Medical Storekeeper, Meean Meer, until further orders; Surgeon-Lieutenant-Colonel W. O'Hara to be District Medical and Sanitary Officer, Trichinopoly; Surgeon-Lieutenant-Colonel J. A. Laing, to be District Medical and Sanitary Officer and Superintendent of Gaol, Bellary; Surgeon-Lieutenant-

Colonel W. G. King to be Sanitary Commissioner, Madras; Surgeon-Lieutenant W. Young (Bengal), whose services have been placed temporarily at the disposal of this Government by the Government of India, Home Department, to officiate as Civil Surgeon, 2nd class, and to be posted to the Budaun District; the services of Surgeon-Captain H. W. Elphick (Bengal) are placed permanently at the disposal of the Government of the North-West Provinces and Oudh; the services of Surgeon-Major R. R. H. Whitwell are placed at the disposal of the Government of Bengal; Surgeon-Lieutenant Evans has been transferred from general duty, Deesa, to general duty, Mhow District; Brigade-Surgeon-Lieutenant-Colonel Patrick Richard Martin, Madras, retires from the service.

NAVAL MEDICAL SERVICE.

The following appointments are announced:—Deputy Inspector General Alexander Turnbull to Chatham Hospital. Surgeons: Morris C. Langford to the *Orlando;* Alexander Maclean to the *Pembroke;* John A. L. Campbell to the *Sharpshooter;* E. C. Cridland to the *Vivid* (additional); Edward Cuffey to the *Victory;* and Alfred H. Jeremy to the *Rambler*.

VOLUNTEER CORPS.

Artillery: 1st Banff: Surgeon-Lieutenant W. L. Stewart, M.D., to be Surgeon-Captain. *Rifle:* 2nd Volunteer Battalion the Queen's (Royal West Surrey Regiment): Surgeon-Captain H. Stone resigns his commission. 2nd Volunteer Battalion the Prince Albert's (Somersetshire Light Infantry): Surgeon-Lieutenant-Colonel E. Liddon, M.D., resigns his commission; also is permitted to retain his rank and to continue to wear the uniform of the Battalion on his retirement. 3rd Glamorgan: The under-mentioned gentlemen to be Surgeon-Lieutenants: Joseph Edward James Soden and Arthur Lloyd Jones. 1st Nottinghamshire (Robin Hood): Surgeon-Major J. O'Connell Hynes to be Surgeon-Lieutenant-Colonel.

GENERAL SIR E. B. HAMLEY'S LIFE.

The second volume of the "Life of General Sir E. B. Hamley" contains much information which—altogether apart from the unhappy circumstances that led to his sense of grievance and disappointment—will be read with interest by those who took part in the Egyptian campaign of 1882. General Hamley, in his official report to the chief of the staff on the second division at the battle of Tel-el-Kebir, specially notes, for example, the gallantry of Brigade-Surgeon Manley, V.C., who, he says, remained always in the hottest fire, led on stray parties of men, and was of the greatest service to his general at a moment when his staff was dismounted or dispersed, in helping to get his horse over the ditch and parapet of the main entrenchment under a heavy fire. The references, moreover, to the extremely dirty and insanitary condition of the buildings and camping grounds which the troops were, for military reasons, compelled to occupy, to their exposure and to the prevalence of heavy dews at night, bear out the correctness of the views that were expressed at the inquiry which subsequently took place in this country, and go a long way to account for the sickness that prevailed in Egypt in the expeditionary army of occupation after the fighting was over.

THE VOLUNTEER AMBULANCE CHALLENGE SHIELD.

The Volunteer Ambulance Challenge Shield was competed for on Saturday last at Wellington Barracks. Surgeon-Major Grier, A.M.S., Surgeon-Major Carte, A.M.S., Surgeon-Captain Jackson, A.M.S., Surgeon-Major Collingridge (Militia Medical Service), Surgeon-Major Hurst (Northumberland Volunteers), and Surgeon-Captains Squires and O'Callaghan (Volunteer Medical Staff Corps) were the judges who awarded the shield to the 1st Volunteer Battalion Highland Light Infantry, a Glasgow corps, with 274 marks out of the possible 300. Badges were given to the four men composing the team, and also to those of the 2nd Volunteer Battalion Royal Fusiliers, 252 marks; and the Civil Service, 240. The 1st Wilts, 1st Bucks, and 2nd Volunteer Battalion Liverpool followed next in order of merit. At the conclusion of the proceedings Surgeon-Major Grier complimented the teams on the excellence of their work.

MEDICAL MEN AND SERVICE CLUBS.

The *Court Journal* makes the following comment, which we think worthy of quotation, in reference to the recent elections at a popular Service club:—"If it is true that Service clubs are just now showing a feeling against electing candidates belonging to the medical branch of the Service, it is a fact to be regretted. Combatant officers, if they can dispense with the presence of medical men at their clubs, cannot do so in action, when they themselves may be black-balled in a more deadly manner; this they might remember."

DEATHS IN THE SERVICES.

We regret to have to announce the deaths of the following officers:—

Surgeon-Major Horatio Scott (retired), A.M.S., at Basingstoke, Hants, in his sixty-second year. The deceased officer entered the Army in 1858 and retired in 1888.

Surgeon-Captain George Nelis, A.M.S., at Bombay, on the 9th inst., in his thirty-ninth year.

Surgeon-General R. Bowen (retired), A.M.S., at Eastfield, Weston-super-Mare, on the 7th inst. aged seventy-seven years.

On the 17th inst. fifty-five patients were admitted at the Royal Victoria Hospital, Netley, having arrived at Portsmouth by s.s. *Marcotus*, which left Malta on June 7th.

Correspondence.

"Audi alteram partem."

"THE MIDWIVES REGISTRATION BILL."

To the Editors of THE LANCET.

SIRS,—As master of the Rotunda Hospital, which is one of the largest training schools for midwives in this country, I have been so often asked for my opinion upon the Midwives Act that I think it advisable to publish my views through your influential journal. I consider that it is a matter of urgent importance that midwives should be registered; but I consider the definition of a midwife as "a woman who undertakes to attend cases of natural labour without the direct supervision of a medical practitioner" as most objectionable. It places those women who prefer to attend without medical supervision in a superior position to those, often better informed, who prefer to attend if possible with a practitioner, and throws the midwife into antagonism with the medical profession, which cannot fail to do harm; and in this the Midwives Institute are in the wrong; since they wish to accentuate the difference between a midwife and a monthly nurse. In a large proportion of cases a monthly nurse must act as a midwife, and should therefore be a trained midwife. In abnormal cases, on the other hand, a midwife should send for a practitioner and should, acting as a nurse, give him assistance. Many midwives, however, will not do this, but, on the contrary, when the practitioner arrives the midwife departs. In Ireland a midwife is also a nurse; our certificates state that "—— has been trained as a nurse-tender" (or midwife), and the result is that in this country there is little or no friction between medical practitioners and midwives. I object, therefore, to this Bill as giving a legal position and prestige to women who prefer to act without medical supervision and does not sufficiently provide against their treating cases other than normal; because it centralises all authority in London, which is unfair to other teaching centres; and because, being limited to England and Wales, it would prevent our midwives practising in those countries, which would practically extinguish Dublin as a training school for English midwives.

I am, Sirs, yours faithfully,
W. J. SMYLY, M.D.

Rotunda Hospital, Dublin, June 18th, 1895.

To the Editors of THE LANCET.

SIRS,—May I in a few words point out one or two of the impossible conditions embraced in the Draught Scheme published in your issue of June 8th by Dr. Lovell Drage. It is all based on the second clause: "If ..... the women ..... are unable to obtain proper assistance," &c. With a Poor-law system which embraces all parts of the country, it is difficult to see how the District Board, composed as it is of the guardians of the poor who have the carrying out of the Poor-law, could be got to declare that the women in a part of their district were *unable* to obtain proper assistance, as it would be tantamount to passing a vote of censure against themselves. Even if this difficulty were got over, the remedy proposed is neither more nor less than the wholesale pauperisation of the district.

From the amount of officialism to be expended on each stage of the inquiry, it is evident that Dr. Drage's scheme would defeat rather than assist the end it appears to have in view.

I am, Sirs, yours faithfully,
F. ROWLAND HUMPHREYS.

Fellows-road, South Hampstead, N.W., June 11th, 1895.

THE ROYAL COLLEGE OF SURGEONS IN IRELAND AND THE APOTHECARIES' HALL OF IRELAND.

To the Editors of THE LANCET.

SIRS,—As some misapprehension seems to exist regarding the report of the visitors to the examinations of the Conjoint Board of the Royal College of Surgeons and the Apothecaries' Hall of Ireland, it is necessary shortly to state the facts. Under the Medical Act of 1886 it became necessary to form a union between various licensing bodies for the purposes of examination. Such a junction was effected and still exists between the Royal College of Surgeons in Ireland and the Royal College of Physicians. The Apothecaries' Hall then established its right to give a diploma which could be registered, and to do this it was necessary that there should be an examination in surgery. That body had been left out of the combination of the College of Physicians and the College of Surgeons, and in accordance with its right it applied to the General Medical Council for leave to appoint examiners in surgery, and permission was granted in May, 1887. It was, however, deemed inadvisable that an independent licensing body of this kind should continue in Ireland, and after negotiations the College of Surgeons entered into a conjunction with the Apothecaries' Hall to examine candidates apart from the union with the College of Physicians. Examiners were appointed, partly by the College of Surgeons and partly by the Apothecaries' Hall; but upon reports made by the visitors of the General Medical Council the Council of the College of Surgeons decided by vote on June 22nd, 1894, to terminate the arrangement at the close of one year. It was, however, agreed that all candidates who had passed part of the examinations should have their rights preserved and should be examined so long as they presented themselves.

The examinations have been very closely inspected and freely reported upon. The last report of the visitors (April and May, 1895) describes the first professional examination as "a good and satisfactory test"; in the second the examination in anatomy and materia medica and pharmacy as "commendable"; and of the third it declares that "no exception could be taken to any part of this examination." Of the final examination the visitor and inspector report an "improvement generally." At this examination the examiners in medicine are appointed by the Apothecaries' Hall, and in surgery by the College of Surgeons. In all the other subjects, save medicine, the visitors state that the examination was "sufficient," and of the examination in medicine it is right to say that the visitors differ from the examiners in one point only, and that they declare that the "examination was a most careful one, and, we believe, was conscientiously conducted." It was upon this report that the Medical Council agreed to bring this conjoint scheme before the Privy Council as insufficient. What we desire to show is that the work of the College of Surgeons in this connexion has been properly carried out and to make it known that the partnership is on the eve of dissolution. There is no examination in the world with which faults of different kinds may not be found by so many different visitors. For many years the examinations of this College, as of all others in the United Kingdom, have been reported on, and we have received frequent commendation. The College endeavours to maintain a high standard; in certain senses its examinations are in advance of those of other countries, and in this last report we have again obtained the approval of the visitors.

We ought, perhaps, again to point out that the union between the College of Physicians and the College of Surgeons continues as before, and that the examinations have been declared to be, in the words of the Act, "sufficient."

W. THORNLEY STOKER, President.
WILLIAM THOMSON, Vice-President.
ROBERT H. WOODS, Sec. of Council.

Royal College of Surgeons in Ireland, Dublin, June 11th, 1895.

VISION IN ELEMENTARY SCHOOLS: A REQUEST.

To the Editors of THE LANCET.

SIRS,—Will you permit me to say through your columns that I have undertaken, in conjunction with a committee of the Education Department, to investigate the state of vision among the children in elementary schools, and that I shall be very glad to obtain the help of competent volunteers in carrying out this undertaking? Any gentlemen accustomed to estimate refraction, and able to spare a couple of afternoon hours on stated days, will much oblige by communicating with me at 31, Harley-street, W. I propose to ascertain the percentage of children with subnormal vision and the cause to which in each case the subnormality is to be ascribed. I should, perhaps, add that my own work in the matter will be unpaid, and that I am consequently unable to offer payment to those who may be good enough to assist me.

I am, Sirs, your obedient servant,
Harley-street, W., June 18th, 1895. R. BRUDENELL CARTER.

THE REMUNERATION OF MEDICAL OFFICERS TO PROVIDENT ASSOCIATIONS, CLUBS, ETC.

To the Editors of THE LANCET.

SIRS,—The paper of Mr. F. R. Humphreys, read before the Hunterian Society, on the Necessity for a Central Organisation in the Medical Profession, and the publication in THE LANCET of June 8th of the Hospital Sunday Committee, render the above subject peculiarly interesting just now. I hope, therefore, you can find room for what must, from the nature of the subject, be a long letter. Some years ago you did me the honour to publish a letter regarding the general income of the profession, which led to such a long discussion as proved this to be a burning question. For years past the number of qualifications granted has exceeded the retirements from the medical profession by some 600 a year. This means in a single generation an increase of 18,000 in the number of medical men. It is no wonder, therefore, that medical practitioners are tempted to undersell one another. According to Mr. Neison's statistics of the sickness experienced in the Manchester Unity of Oddfellows, one may expect in patients between the ages of twenty-one and sixty-five an average of one month's sickness per head per annum, which, I think, may be taken as equivalent to fifteen visits. As the present payments range from 3*s.* 6*d* to 6*s.* a year (most usually 4*s.* or 4*s.* 4*d.*) we may consider the scale of payment to medical officers of provident dispensaries, friendly societies, &c., as about 3*d* a visit, including medicine. I think parochial medical men get less even than this, but it is difficult to compute. It seems to me that no contribution is worthy of the name of "provident," in which the scale of pay is so inadequate that it would be impossible for a man devoting his whole time to the work to make the poorest living commensurate with his class of life. Let us see how 3*d.* a visit works out. We will even assume that the present scale of payments would allow of 1*d.* for each consultation at the surgery as well as 3*d.* for each visit at the patient's house. We will assume that poor people live close together and can be seen at the rate four visits (or twelve consultations) an hour. It is only in towns that such an assumption would hold good. As eight hours is considered a working man's day, we will take eight hours as a just day's work for a medical man of which six are spent in visiting and midwifery and two in home consultations and dispensing. Thus we have—

	s.	*d.*		
Six hours, at four visits per hour at 3*d.* each	6	0		
Two hours, at twelve consultations per hour at 1*d.* each	2	0	8	0
Deduct for expenses—				
Use of furnished waiting-room and surgery, with fires, lights, and attendance, say	1	6		
Thirty bottles of medicine at 1*d.* each (cost price)...	2	6	4	0
Nett cash			4	0 a day.
Equal to			24	0 per week.

Twenty-four shillings a week is not the pay of a skilled mechanic, and you will grant that I have estimated the working expenses at too low a figure. Nor have I reckoned anything for interest on or recovery of capital sunk in obtaining

a qualification. Nor do I believe that any man could long stand the strain of six hours visiting a day *on foot* besides the other work; anyway, no skilled mechanic has anything like it. Even at 1*s.* a visit and 6*d.* a consultation, if a medical man drove on his rounds you will find that at eight hours a day it would not be likely that he would make £200 a year. Even the clergy, admittedly badly paid, do better than this. No, Sirs, if the poor cannot pay more than 4*s.* a year let it be called *charity* and not *providence*. Add the work done gratis at the hospitals and elsewhere, and how many millions a year do the medical profession contribute to the charities of England?

Would it not be possible for the profession to form an association among themselves that really would charge "provident" rates? Let us suppose that a shilling a month was the minimum. Let any medical man or chemist belong to the association who was on the Register. Let there be a fixed tariff for dispensing, and let that be done by chemists, as it should, and let the balance be divided amongst the medical men according to the number of patients entered on their list. Let there be one simple rule, that no medical man was eligible to belong to this association who accepted less payment from any club or provident society that did not publicly profess to be a charity. At present the holders of these appointments are often the best men in the neighbourhood, but let them once occupy the invidious position of underselling their brethren and they would either resign or insist on the public announcement that the Association they served was a charity entitled to demand a rigid scrutiny of the means of all applicants. The present tests are usually farces. Poor people have little or no idea that they are getting the services of medical men for anything less than the market value and would be indignant if charged with the "sweating" practices so loudly denounced by their own champions in Parliament and elsewhere. No government dare give out a contract without stringent regulations to protect the workman against sweating middlemen, and yet there is not a medical parochial appointment in England which could not justly be described as "sweated." I am, Sirs, yours faithfully,

E. PAGET THURSTAN, M.D.

THE VAPOUR OF OPIUM AND OTHER VAPOURS OF THE PHARMACOPŒIA.

To the Editors of THE LANCET.

SIRS,—In treating a case of the ordinary insomnia of influenza I found recently some good results from the inhalation of the vapour of opium. In one case especially, after four nights of sleeplessness, twelve hours followed the inhalation of the vapour obtained by the combustion of one and a half grains of opium. It seems, according to the valuable papers of Dr. Reginald Thompson in the *Practitioner* (1878–1879), that the inhalation of opium is of great value in the relief of such cases as are admitted into the Brompton Hospital; and if this be so, there are other classes of cases which might receive benefit from the administration of opium in the form of vapour. It would seem possible to make a more rational use of opium as vapour than is done by the Chinese, and the question, I think, is worth our consideration.

It is desirable that some great improvements should be made in the "vapores" of the Pharmacopœia. There is no doubt but that the use of some medicinal agents in the form of "vapores" may be of great benefit in a certain class of cases; but to effect good it is necessary to study carefully the scientific principles on which evaporation depends and how they are to be put into practice. The "vapores" are the most curious evidence of ignorance that can be quoted from the Pharmacopœia. I am, Sirs, yours faithfully,

West Kensington, June 14th, 1895. ROBERT LEE.

"ENTERIC FEVER AMONG EUROPEAN TROOPS SERVING IN INDIA."

To the Editors of THE LANCET.

SIRS,—In your issue of May 18th Brigade-Surgeon-Lieutenant-Colonel Climo, in his article on "Enteric Fever among European Troops Serving in India," states: "The explanation of the comparative immunity of native troops is that in childhood natives have passed through conditions arising from exposure to the enteric poison which, in after-life, render them exempt from the disease." In this statement appears to me to lie the explanation of the entire matter. As in India the insanitary environments procure immunity for the race born and bred therein, so some few decades ago the insanitary condition of England likewise procured immunity for her sons and consequent freedom from enteric fever when they were called upon to serve abroad. The vast strides in sanitation made in England within the last twenty or thirty years have resulted in the production of a race that, unless possessed of natural immunity, as many individuals no doubt are, is certain to suffer severely on arrival in insanitary countries such as India or Egypt, where enteric fever is endemic.

Further, the more perfect sanitation becomes at home, the greater the prevalence of enteric fever we must anticipate abroad, until such time as the sanitary conditions abroad equal those at home. The above appears to me to be a more reasonable explanation of the "Scourge of India" than the abolition of the regimental surgeon, advanced by Dr. Climo; or the youth and short service of the soldier of the present day, generally accepted by other writers.

I am, Sirs, yours faithfully,

Cairo, May 28th, 1895. W. L. CHESTER, M.B., Surgeon-Lieutenant-Colonel, A.M.S.

"ADENOID GROWTHS IN CHILDREN."

To the Editors of THE LANCET.

SIRS,—The interesting communication of Dr. Eustace Smith on laryngeal spasm associated with post-nasal growths in infants, and the subsequent correspondence, encourage me to send you the outlines of a case which came under my notice about two years ago. The patient was a well-developed boy aged seven months. The peculiar loud crowing noise had been first observed soon after birth, and was most marked during sleep. It seemed to increase up to the time at which I was asked to see the patient. I found adenoid vegetations were present and caused incomplete nasal obstruction. I removed the adenoids with a Gottstein's curette. The operation removed what nasal obstruction was present before the operation, but it appeared to have no effect on the laryngeal spasm, which continued for eight months longer; at the end of this time the crowing gradually disappeared.—I am, Sirs, yours truly,

J. JACKSON CLARKE.

Old Cavendish-street, W., June 17th, 1895.

To the Editors of THE LANCET.

SIRS,—My attention has been drawn to an article by Dr. Eustace Smith on "Adenoid Growths in Children" as a cause of, amongst other conditions, laryngismus and other spasmodic laryngeal affections, and he has stated that such cases used to puzzle him greatly. Permit me to remark that in the first edition of "The Throat and its Diseases," published in May, 1878, I drew attention to the subject of adenoids, with pictorial illustration of a case operated on in October, 1877, and also to the importance of enlarged tonsils as a cause of nervous laryngeal cough.

In the third edition, dated May, 1890, p. 518 (and previously in the *British Medical Journal*, Feb. 15th, 1890), I insisted on "the primary importance of naso-pharyngeal glandular hypertrophy, in other words, adenoid growths in the vault of the pharynx," as a factor "not only of laryngismus, but also of tetany and convulsions, which are both exaggerated examples of the same disease." I have gone even further, and in fact, *pace* Dr. McBride, have long held that it would be difficult to name any inflammatory or reflex disease of the respiratory passages in children in which recognition of nasal obstruction was not a necessary step to a complete diagnosis, and removal of the same the most rational and effectual method of treatment. These views, not only with regard to laryngismus, but almost every other disease mentioned by Dr. Eustace Smith, have been urged by me with enthusiasm and persistence for so many years, both in my systematic works and at medical societies and in current medical literature, that I may be pardoned for expressing surprise that they only first attracted Dr. Eustace Smith's attention so recently as October, 1891.

I am, Sirs, yours faithfully,

Mansfield-street, W., June 11th, 1895. LENNOX BROWNE.

*** We are strongly of opinion that, as a general rule, claims to priority in the detection of diseases or their

symptoms are to be deprecated among members of the profession, if only for the reason that to draw attention to a subject is not necessarily to recognise its importance. We recommend, however, to the perusal of Mr. Lennox Browne our obituary notice of Dr. Hans Wilhelm Meyer (p. 1613), and the substantial claims that it contains for the recognition of the services of that learned physician and certain of his *confrères*.—ED. L.

"THE SECRETARY OF STATE, THE SOCIETY OF MEMBERS, AND THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND."

To the Editors of THE LANCET.

SIRS,—In your otherwise correct annotation on the subject of the intervention of this society in connexion with the amendment of By-law 16, you have omitted to mention that the Secretary of State agreed with our main contention, which was that the Council (as at present constituted) is not fitted to be the sole and uncontrolled judge as to what is "infamous conduct" on the part of a member. Under the by-law as proposed, it was pointed out by Mr. Asquith that "the only question which could be decided by a court of law would be whether, in 'the opinion of the Council,' a member had offended against the terms of the by-law, thus leaving the action of the Council wholly uncontrolled." Under the by-law, as amended by the Secretary of State, the Council has full powers to deal with offenders, subject to the salutary control of the law-courts.

I am, Sirs, yours faithfully,

Southfields, S.W., June 17th, 1895. W. G. DICKINSON.

THE SUPPORT OF HOSPITALS AND THE ABUSE OF THEIR SERVICES.

To the Editors of THE LANCET.

SIRS,—As a medical man having some knowledge of the immense abuse of the out-patient department of hospitals and of the disastrous effect this has upon my own profession, I felt great difficulty in my capacity of churchwarden in giving my sanction to devoting the offertories on "Hospital Sunday" to the fund which goes by that name. It does not appear to me to be right to give money dedicated to God's service to a fund which is divided up amongst a number of institutions who admittedly make little or no attempt to confine the expenditure of the donations to the purpose for which they were given; while, on the other hand, the money is partly expended in carrying on a grossly unfair competition with a profession which is noted for its charitable acts. My vicar had, I found, made arrangements long since, in accordance with the custom of previous years, by which the offertories of Hospital Sunday were to be given to the Fund, so that I did not interfere with them on this occasion; but I do feel that since you issue a Supplement showing the needs of the hospitals, it is not unreasonable to ask you also to publish a statement showing the attempts which are being made by the hospitals and dispensaries benefited by this Fund to devote money given to them to charitable purposes—i.e., entirely to the objects for which the money is given—and so defending it from abuse.

I am, Sirs, yours faithfully,

June 10th, 1895. PEOPLE'S WARDEN.

THE ELECTION OF MEDICAL OFFICER TO THE LAMBETH INFIRMARY.

To the Editors of THE LANCET.

SIRS,—In your issue of June 1st there was an advertisement for the post of medical officer to the Lambeth Infirmary. The chief points in it were—the candidate "must possess the medical and surgical qualifications prescribed by the orders of the Local Government Board"; "he will be required during term to give lectures to the probationers under training at the infirmary"; and "the entire management of the infirmary, whether medical or otherwise, is placed under the control of the medical officer, rendering it essential that he should be possessed of good administrative capacity as well as professional skill and experience." There are over fifty candidates, myself amongst the number. I have just heard that the finance committee, in whose hands is placed the selection of four or five candidates to go before the full board, last night passed a resolution, with one or two dissentients, that all those candidates who did not possess an M.B., M.D., or F.R.C.S. degree be struck out. Now, Sirs, I think a proceeding of this kind ought not to be kept a secret. It is most unfair to all those candidates who have not got these degrees, and who thus wasted their time and money in sending in their applications. It may act (and probably will) in a manner most prejudicial to the interests of the board itself, and also the ratepayers, because the man most fitted for the post may be amongst those struck out, for it by no means follows that because a medical man has an M.D. degree therefore he is capable of taking charge of the Lambeth Infirmary, which is really a hospital with over 600 beds. It is also most stultifying to the board itself, for if the members had originally intended to limit the candidates in this particular way they would have said so in their advertisement. Why, then, should this committee override the board? The committee also fixed the minimum age at twenty-eight. I hope you will not think that I write this as a disappointed candidate. Personally, it makes very little difference to me; but I think that such peculiar methods of selection ought to be exposed, for if this is taken as a precedent it must of necessity debar many efficient men from applying.—I enclose my card and am, Sirs, yours obediently,

June 18th, 1895. M.R.C.S., &c.

P.S.—The election is fixed for the 26th inst.

"THE BOYLE LECTURE AT OXFORD."

To the Editors of THE LANCET.

SIRS,—I am very much obliged to you for indicating where I could find Professor Crum Brown's lecture fully reported. I have now read it more than once with considerable interest, but also, I am bound to add, with some perplexity. If the distinguished lecturer will pardon my saying so, his diction is not always perfectly lucid. Here, for example, is a passage which for the life of me I cannot construe into either rhyme or reason. "If we call the line along which we look during the pause between two jerks a glance-line, we may describe the whole phenomenon by saying that the glance-lines are fixed relatively to fixed external objects, whether the head is rotated or not. This, of course, means that during a pause the eyes are rotated relatively to the head about the axis on which the head is really rotated, in the opposite sense and through the same angle as the head." Now what on earth do these words mean? They are all simple, commonplace expressions, employed apparently in consonance with the ordinary rules of grammar, but the more I pore over the passage the greater grows my bewilderment. To the Professor, with the context in his mind, the meaning doubtless is as plain as a pikestaff, but I freely confess I am quite unable to fathom it. After such an admission of incompetence I am almost afraid to insist on the two objections raised in my former letter, and yet one of them, at all events, seems to me in my ignorance to be well founded. If, however, I am to be hung (as seems probable) I may as well have my sheep—provided, of course, I am not thereby seeking to trespass too far upon your kindness and space.

As regards my first objection I find that Professor Crum Brown does not assert that "when the head is moved rapidly in one direction the eyes have to move to a corresponding extent." On the contrary, he talks of fixing the eyes on a point and keeping them so fixed while rotating the head. He is well aware of the power we all possess of moving our heads while steadfastly regarding a fixed object, and yet he commits himself without limitations to the following statement: "What has been said seems to show that our immediate sense that the earth and what we call fixed objects on it are fixed is a consequence of the way in which we move our eyes, and, in particular, of the way in which, by a suitable movement of the eyeballs, we involuntarily and unconsciously compensate movements of the head, voluntary or involuntary, conscious or unconscious."

As regards my second objection I have only to add that in my humble opinion there is nothing in the lecture to diminish its validity. According to Professor Crum Brown the force controlling the compensatory movements of the eyes is

purely mechanical; it is consequently impossible to reconcile his theory with obvious facts.

I am, Sirs, yours faithfully,

June 17th, 1895. SURDUS.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Shahzada's Visit to the City.

THE visit of the Afghan Prince was in all respects most successful. It comprised part of the afternoon of Tuesday, the 11th, the whole of Wednesday, the 12th, and a great part of Thursday, the 13th inst. On the Wednesday he had an admirable opportunity of seeing the better and the worse side of Liverpool, the procession being through a principal thoroughfare of Toxteth Park which was thronged with the inhabitants of the worst streets in Liverpool. A short drive took the Prince to a sight much more agreeable, Sefton and Prince's Park, with their many noble mansions. The Prince had previously travelled by the Over-head Railway, so called because it passes at a high level along the line of docks over the street traffic, the motor power being electricity. The Prince was so much interested in it that he repeated his visit to this railway next day. In addition to an address at St. George's Hall and a luncheon at the town hall, he had an opportunity of seeing the river Mersey to great advantage, and also of witnessing the novel sight of an Atlantic liner moored by the landing stage. Liverpool is determined not to be surpassed in facilities of transit by Southampton or any other port, and it may interest all American visitors professional and lay, as well as all visitors from England to America, to learn that they can now pass through Liverpool with every comfort and without delay by means of the new riverside railway station, all the discomforts of tenders, porters, cabs, &c. having been relegated to the past. The Mersey is remarkably free from stench, though at a certain state of the tide and in certain parts of the river one is occasionally reminded that it is made a deposit for sewage. Perhaps the day is not very far distant when the deposit of sewage in a tidal river will be regarded as even more dangerous than intra-mural burial.

Deaths of Prominent Citizens.

Within the last few days several prominent citizens have passed away, among others being Mr. R. Ellis, clerk to the city magistrates, and Mr. G. J. Atkinson, the town clerk. Both these gentlemen had been brought in contact with many members of the medical profession, each and all of whom could testify to the value of these two public servants. Each in his capacity was a model of what a public official should be, always at hands, always ready to give information in his department, and always respectful, courteous, and obliging.

June 18th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Site for a New Infirmary, Newcastle-upon-Tyne.

THE governors of the Royal Infirmary, having failed to induce the corporation to grant them a site on the Leazes, sent a few days ago a deputation to the town council asking for an extension of the present site. The ground upon which the infirmary was originally built was given by the corporation, and it is felt that what the corporation did some hundred and fifty years ago they should be able and willing to do again. If a portion of the ground now occupied as a market could be handed over to the infirmary little doubt is felt that the money would be forthcoming to place upon it a building as capable of meeting the requirements of the district as was that the foundation stone of which was laid in the year 1751 by Butler, the famous Bishop of Durham. Newcastle was then a small town. Now it is a stately and a wealthy city, a great centre of industrial and intellectual activity, she should not lag behind other towns in providing adequate accommodation for the sick poor. It will be some weeks at least before an answer can be given by the finance committee, to whom the council has referred the question of the possibility of granting the infirmary an extension of the present site.

A Good Example.

The foundation stone of a fine Presbyterian church has just been laid by Sir Donald Currie, M.P., on a plot of ground adjoining that on which the College of Medicine is built, and to commemorate his visit to Newcastle Sir Donald Currie generously handed the mayor a cheque for £100 as a contribution to the funds of the Royal Infirmary.

Rabies at Tynemouth.

A spaniel suffering from dumb rabies was a few days ago destroyed at Tynemouth after having been kept under observation by a veterinary surgeon for a sufficiently long period to make the nature of the disease a matter of certainty. For some time there has been a scare of rabies in the Haltwhistle district. It is believed the Tynemouth dog had not bitten any other animal. An order to muzzle all dogs in the borough of Tynemouth has been issued by the magistrates.

Destruction of Fifteen Boilers with great Loss of Life near Redcar.

On Friday night a terrible boiler explosion occurred at Warrenby, near Redcar, the explanation of which is not at present known. The furnaces were being tapped when the explosion took place. Four men were killed instantly, five others have since died, and others are seriously injured. More would have suffered had the explosion taken place a little earlier. Two hundred men are by this dreadful accident thrown out of work. The damage is estimated as amounting to £20,000. Fifteen boilers are destroyed. An inquiry by the Board of Trade is being held.

Another Fatal Accident to a Cyclist.

A young man named Jameson, while riding down a hill on Sunday last in the neighbourhood of Hexham, lost command of his cycle, and with his machine bounded over the wall of a bridge into a stream, where he was found quite dead. This is the third fatal accident in this neighbourhood within a few days, and there is a patient in the Royal Infirmary suffering from rupture of the urethra, brought about by his missing the saddle in mounting and striking his perineum on some other part of the machine.

The Visit of the Shahzada.

The Ameer's son arrived at Cragside, the seat of Lord Armstrong, with a large retinue, on Saturday from Carlisle. At Silloth he visited the range belonging to the firm of Messrs. Armstrong, Mitchell, and Co., where some cannon and other guns were fired for his edification. On Monday he came to Newcastle. An address was presented to him by the civic authorities, after which he inspected the celebrated Armstrong factory, lunched, and was shown something of the town. He told the deputy mayor he enjoyed himself; at any rate, he took an intelligent interest in everything he saw. It was noticed that one or two of his suite on the way to inspect the works, before luncheon, were asleep, but no doubt they, too, enjoyed themselves after their fashion.

Newcastle-upon-Tyne, June 18th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Cost of Hospital Extension.

THE expenditure on the additions (including furnishings) to the City Hospital, Aberbeen, up to date is £18,428 19*s.* 7*d.* This is exclusive of the cost of erecting a dwelling-house for the employés, a scheme which is at present under consideration by a committee.

An Economic Convalescent Home.

The annual gathering in connexion with the Newhills Convalescent Home, near Aberdeen, took place on Saturday last. In the cottage there and in the branch at Stonehaven 241 patients were treated last year. The Rev. Dr. Smith stated that thirty (female) patients were admitted at the little home at Stonehaven last season and that the whole cost was about £52.

Glasgow University.

At a meeting of the University Court on the 13th inst. Mr. R. Adamson, LL.D., was appointed Professor of Logic in place of the late Dr. Veitch. Mr. Adamson has for three years occupied the chair of Logic in the University of Aberdeen.—Two new lectureships have been recently instituted, one in French and the other in English Literature,

at Queen Margaret College. M Mercier of the University of Geneva has been appointed to the former, and the latter is to be filled by Mr. A. A. Jack, B.A. Mr. Jack is a son of Dr. Jack, the Professor of Mathematics in the University.

Coöperative Seaside Home.

The foundation stone of the new home at West Kilbride was laid on the 15th inst. in the presence of a large number of representatives of the various coöperative societies in the west of Scotland. The estimated cost of the home when completed is £9000, towards which sum Mr. Wm. Barclay, Glasgow, has generously contributed £2000 to be devoted to the erection and furnishing of one of the wings of the new building.

Volunteer Ambulance Training.

The annual inspection of the Glasgow companies of the Volunteer Medical Staff Corps took place on York-hill on the 14th inst. The inspecting officer was Surgeon-Colonel Grose, Principal Medical Officer for Scotland, and Surgeon-Captain Bentson was in command. After the march past "A" Company were told off to represent an ambulance section in active service in the field, and formed dressing and collecting stations for the reception of the "wounded" brought in by the stretcher detachments. At the same time "B" Company were put through the movements of bearer company drill. The companies were then formed up, and in addressing them Surgeon-Colonel Grose expressed his gratification at the work he had seen, and said he would have pleasure in making a good report on the efficiency of the companies. Satisfaction is naturally felt in local volunteer circles that at the recent ambulance competition held at the Wellington Barracks for the challenge shield and badge the team representing the 5th Lanark took the first place, and so bring the shield north of the Border. The Lanarkshire regiment was the only Scottish corps represented in the competition.

Glasgow Royal Infirmary.

The recent changes in the staff have created a vacancy both in the position of visiting physician and visiting surgeon; and the managers have decided to return to former arrangements and to appoint two extra-dispensary physicians. For these appointments there are a number of applicants, and an energetic canvass has been in progress during the past ten days. I offer my condolences to certain of the candidates who have been so unfortunate as to suffer from an attempt to press their claims in the columns of a local weekly journal.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The late Dr. Valentine Ball, C.B., F.R.S.

THE two events in Dublin this week of the greatest scientific importance are sadly and undoubtedly the deaths of Sir George Hornidge Porter and Dr. Valentine Ball. Of Sir George Porter I shall not attempt to speak in the space at my disposal. Dr. Ball, whose death took place on the 15th inst., although a doctor, not of medicine, but of law, was very widely known and esteemed by the medical profession in Dublin, and was brother not only of Professor Ball of Cambridge, but also of Dr. Charles Ball, our well known surgeon. After occupying for some short time the position of Professor of Geology at Trinity College, he became Director of the Science and Art Museum, Dublin, a post which he filled as successor to the late Dr. William Steele during the past twelve years. His large experience on the Geological Survey of India and his remarkable attainments in natural science rendered him highly fitted for the position which he filled with such ability, and for which it will be difficult to find a successor so highly cultured and so capable.

The New Assistant Under-Secretary for Ireland.

Professor J. B. Dougherty, M.A., has been appointed Assistant Under-Secretary for Ireland, in place of Sir W. S. B. Kaye, C.B., Q.C. Professor Dougherty is son of the late Dr. Archibald Dougherty, a well-known member of the medical profession. He was educated at Queen's College, Belfast, where he was senior scholar, and he was a gold medallist in the Queen's University. He was Professor of English Literature and Logic in Magee College, Londonderry, and for a time he was a member of the Educational Endowments (Ireland) Commission.

The Belfast Board of Guardians and the Public Health Committee.

The Belfast board of guardians having reported to the Public Health Committee of the Belfast corporation, on the authority of their dairy inspector, that there were no fewer than forty-seven cows grazing inside the city boundary which had no supply of pure water, a reply has been received to the effect that Dr. Whitaker, the superintendent medical officer of health, says that there is no nuisance injurious to health, and that the Public Health Committee were not aware of any Act of Parliament showing what water animals should be allowed to drink; but if the guardians could point out any authority by which they could act the committee would be happy to move in the matter. To this the guardians reply that, having pointed out the danger to the Public Health Committee, they do not feel called on to suggest the remedies to be applied. So the matter rests at present.

Monaghan and Cavan Asylum.

At the monthly meeting of the governors of the Monaghan and Cavan District Lunatic Asylum, held on June 14th, it was decided, with the view of applying the speediest and most economic remedy to the present overcrowding in the asylum, to recommend the purchase by the board of control of the County Monaghan Infirmary. This infirmary adjoins the asylum grounds, has an excellent supply of water and can accommodate sixty or seventy patients; and it seems that possession can be immediately acquired.

The Water-supply of Portstewart.

I understand that the Coleraine board of guardians have agreed to apply to the Board of Commissioners of Public Works in Ireland for £1000, the first instalment of the loan of £3000 granted for the construction of waterworks and sewerage works for the town of Portstewart, which is one of the most popular of the northern Irish seaside resorts.

The Belfast Royal Hospital.

On June 15th the working men's committee of the Belfast Royal Hospital paid their annual visit to the "Throne" Convalescent Home, and having made a thorough inspection of the place passed a resolution approving very cordially of the condition of the institution and strongly recommending its claims, as well as those of the Royal Hospital, to their fellow working men and women in the city of Belfast. Dr. W. Calwell, registrar of the Royal Hospital, has been appointed physician to the Throne Consumptive Hospital in place of Dr. Strafford Smith, resigned.

The Weather in the North of Ireland.

The present extraordinary weather, characterised by hot, scorching days, cold frosty nights, and with the wind blowing from the north or north-east, is doing incalculable harm in the North of Ireland. For two months we have had practically no rain, and the country at present has a burned, arid appearance very rarely seen. The hay crop is very light, turnips are a complete failure, and flax and corn are short and stunted and beginning to ripen. The only crop doing at all well is that of potatoes, but they, too, have been much injured by the frosts. In several of the northern seaside resorts, unless rain falls soon, there will be great difficulty in procuring fresh water. The general health in Belfast is good, the dry weather apparently not having any effect in increasing the death-rate.

The Londonderry Workhouse.

At the weekly meeting of the Londonderry board of guardians, held on June 15th Mr. Browne, medical officer of the workhouse, reported that the nurse's apartment was quite too small, being only 12 feet by 9 feet, and was used as a sitting-room and bedroom. The present nurse was doing as well as she could with the large number of patients (57) under her charge. He heartily approved of the proposal of the board to appoint an additional and thoroughly trained nurse. There were no proper sanitary arrangements, baths, or even proper ventilation for either nurse or patients, and he recommended the board to take this matter into their consideration. It was decided to appoint a properly trained and qualified nurse, at a salary of £30 a year with rations and apartments, to take charge of the infirmary and be assisted by the present one. It was also arranged to employ an architect to make out a specification for the improvement of the nurse's quarters, the enlargement of the surgery, and the improvement of the sanitary condition of the infirmary.

An Admiral's Brave Attempt to Rescue a Drowning Man.

On Saturday morning a foreman labourer named Kenny was showing Rear-Admiral Buckle through the tank buildings at Haulbowline, and when walking on a narrow wall separating the tanks Kenny struck his head against one of the beams overhead and fell into the water. He sank and did not even once rise to the surface. The Admiral, without waiting to divest himself of any of his clothes, hurriedly tied a rope round his waist and called on some men who were present to lower him into the tank. He quickly discovered the body, hitched a rope round it, and had it promptly drawn up. Poor Kenny was then conveyed to the Naval Hospital, where the naval surgeon, assisted by the Admiral and others, did everything possible to procure resuscitation, but all to no avail. The Admiral's pluck and presence of mind are most highly commended and have produced a favourable impression.

Important Lecture on the Housing of the Poor in Cork.

The Rev. Father Roche has been lecturing to the Cork Young Men's Society on the Plague Spots of our City. He explained that his parochial duties gave him unusual facilities for becoming disagreeably acquainted with the tenement houses of some of the slums of the city. He referred to the defective sanitary arrangements, the noisome atmosphere, the overcrowding, and the general wretchedness of some of those homes of the poor. He pointed out how such a state of things is well calculated to lower morally and physically the unfortunate beings who are obliged to drag out a miserable existence amidst such wretched surroundings. He forcibly pointed out what a strong temptation it is to such people to resort to the well-kept, comfortable tap-room of the public-house, where in winter the bright fire cheers and comforts, and where at all seasons are to be had the alcoholic potions which unfortunately are regarded by many as the panacea for driving away care and sadness. He urged that the corporation should build suitable houses and pointed out that in other cities where that had been done the municipal authorities had sustained no loss financially and incalculable benefits had been conferred on the poor. Several rows of labourers' cottages have been built in Cork from time to time, and there is every hope that the corporation, influenced by the strong representations made by the reverend gentleman, will soon make a further move in the direction he has indicated.

The Fermoy Workhouse and the Circular of the Irish Medical Association.

The report of the Irish Medical Association with regard to the treatment of the inmates of some of the Irish workhouses has already been discussed by several of the southern boards of guardians. The Fermoy board called for a report from the master, and, in reply, he states that the hospital patients are at all times under the supervision of paid officials, that the food given to them is wholesome and the best obtainable in the market, and that every attention is paid to ventilation and sanitation generally. The medical officer of the union endorsed the master's report, which was considered satisfactory by the guardians.

June 19th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The late Professor Verneuil.

IN the late Professor Verneuil, who died on the evening of Tuesday, June 11th, at Maisons-Laffitte, near Paris, from broncho-pneumonia, and whose death was announced in the last issue of THE LANCET, French surgery has lost a notable figure. For some months past his health had been far from satisfactory, and I remember how last summer, during professional visits I had occasion to pay at a house at Maisons-Laffitte separated only by a wall from his villa, a loud, convulsive, almost pertussic cough used to attack him for several minutes at a time. Like the late Professor Peter, Aristide Auguste Stanislas Verneuil was a Parisian, having first seen the light in this city on Sept. 29th, 1823. Pursuing his medical studies at the Paris Faculty, he was, at twenty years of age, an *externe des hôpitaux*, and from the following year, 1844, until 1848 an *interne lauréat des hôpitaux*; then successively *aide d'anatomie* and *prosecteur* (demonstrator). He was in 1852 "received" as M.D., his inaugural thesis being entitled "Recherches sur la Locomotion du Cœur." In August, 1853, he successfully competed for the post of *professeur-agrégé*, his thesis being a brochure of 175 pages on the Venous System. It was, however, only three years later that he became a hospital surgeon. In 1862 we find him surgeon of the Lourcine Hospital (now rechristened Hôpital Broca), in 1865 of the Midi (now Hôpital Ricord), and then of the Lariboisière; in 1872 he passed to the Pitié; and finally, in 1889, he migrated to the Hôtel-Dieu. The lucidity of his clinical lectures procured him in 1868 his election as Professor of Surgery. His contributions to surgery were already numerous and important, his writings bearing upon diatheses and traumatisms, anatomy, history of medicine, tuberculosis, cancer, &c. Amongst his later works we may specially mention his "Chirurgie Réparatrice" (1877), which constituted the first of the five volumes comprising his "Mémoires de Chirurgie." In 1877 he founded the *Revue de Médecine et de Chirurgie*, which was in 1880 split up into two journals. From 1887 to 1890 he published, in conjunction with collaborators, the "Études Expérimentales et Cliniques sur la Tuberculose." To the two chief plagues of suffering humanity—cancer and tuberculosis—he swore a deadly enmity, and he founded leagues against cancer and tuberculosis which were for some time productive of some good. Member of the Academy of Medicine in 1869, then President of the Surgical Society, he was in 1887 elected to fill the *fauteuil* of the late Professor Gosselin at the Académie des Sciences (surgical section). In 1889 he was promoted to a Commandership of the Legion of Honour and appointed Life-President of the Congrès de Chirurgie. In 1892 he voluntarily resigned his chair of Clinical Surgery, although he had not yet reached the limit of age necessitating such a step. When he delivered his farewell lecture at the Faculty the students and his old pupils who filled the theatre gave him an immense ovation. It is doubtful if the deceased professor will leave any marked trace of his surgical existence. Like many French surgeons of the old school, he was somewhat slow in adopting new ideas, and did not easily adapt himself to the new order of things. I well remember how opposed he was to the excision of tuberculous lymphatic glands, maintaining that the operation opened the way for fresh infection. But that he was an *esprit d'élite* is certain, and his qualities as a teacher were of a superior order. His oratorical powers were great, and he could manipulate the French language in a manner most conducive to the clear exposition of any given case. His appearance was distinctly in his favour, and his manners were most pleasant. He leaves behind him a crowd of devoted pupils, many of whom are now professors themselves.

June 18th.

ROME.

(FROM OUR OWN CORRESPONDENT.)

Political Mania.

I LITTLE thought when penning the few words which appeared in THE LANCET of June 8th on the inhibitory paresis occasioned by the high-pitched excitement of the late elections that another example of it, in its homicidal phase, would so soon be forthcoming. The lay journals have already announced the fact that Signor Ferrari, an eminent statesman, returned for Rimini by a triumphant majority against the candidate of the Opposition, was fired at by a group of Socialists as he was entering his house. The wound, in the upper region of the thorax, at first thought fatal, seemed for a few days to have taken a favourable turn. Later symptoms, however, put an end to all hope, and, though every assistance that the ablest consultants could give—prominent among them being Professor Murri of Bologna—was unremittingly bestowed, the elevation of the temperature, with the rapid pulse and the broncho-pulmonary distress, too surely foreshadowed the end, which took place on June 10th.

The Policlinico.

Those of your readers who took part in the proceedings of the International Congress of Medicine and Surgery held in Rome in the Easter of 1894 will remember the "Policlinico" in which the nineteen sections were accommodated. Scarcely half finished at that time, the vast institution has made notable progress in the fifteen months that have since elapsed. On Friday, the 7th inst., their Majesties the King and Queen, accompanied by distinguished representatives of the Royal household, were conducted over the newly completed portions by his Excellency the Minister of Public Instruction, Dr. Baccelli. The visit was a highly gratifying

one, not only to King Humbert and Queen Margaret, but also to their host, who received from their Majesties the warmest congratulations on the satisfactorily forward state of an institution which owes to him, and to him alone, its inception and its place, already assured, among the best-equipped hospitals of Southern Europe.

Regional Congresses of Medicine.

THE LANCET of May 27th, 1893 contained an obituary notice of Dr. Giacinto Pacchiotti, Professor of Surgery at Turin, one of whose chief merits was the impulse he gave to periodical meetings, regional and provincial, national and international, for the promotion of Italian medicine. His efforts were made on British lines; indeed, he was one of the most familiar figures at the annual meetings of the British Medical Association, from which he seldom failed to bring back suggestions for the still further improvement of the organisations he had so much at heart. Year by year these efforts are bearing richer and riper fruit, till the healing art, in its *ensemble*, can point to not a few memorable monographs and instructive treatises contributed on some of its obscurer departments at Italian medical congresses. One of the best organised of these has just met at Spezia. The Genoese school was ably represented, its Professor of Psychiatry, Dr. Morselli, opening the proceedings with a brilliant survey of the medical field since "evolution" became a working hypothesis in the hands of Darwin. Concentrating his observations on the "patologia cellulare" of Italian classification and on heredity in disease, he developed what he called the "endogenous" and "exogenous" conception of cellular maladies, deducing from it the double office of scientific medicine, that of "correcting and transforming" as far as possible the affected cell, and that of combating the infinitesimal yet formidable microbes which insidiously attack the defectively nourished organisms—combating these by rigid hygiene and sound alimentation. The address was a highly suggestive one, and, officially revised in the proceedings, will form a feature in their publication which will endeavour by classification and method to attain what Professor Michael Foster so much desiderated at the last great international congress—a periodical digest of the ground covered by biological, medical, and clinical research. Properly edited, indeed, the transactions and proceedings of the annual, biennial, or triennial congresses of the healing art should signally facilitate contemporary work by saving it from retraversing what is already beaten ground and economising its energies for fields untilled or but partially cultivated.

The Circolo dei Naturalisti.

I have from time to time noticed the lectures delivered at this specially Roman association as peculiarly interesting to the profession, combining as they do the pursuit of medicine with biological research, and riveting the bonds of attachment between what Hippocrates himself saw to be but two branches of the same stem—natural history and disease. The other evening the "Circolo" met in genial symposium to give a farewell banquet to one of its most prominent members, Dr. Maurizio Sacchi, who sets out in a few days for Central Africa to direct the biological side of the expedition shortly to start thither under the intrepid explorer Captain Bòttego. The company included distinguished geologists like Professors De Stefani and Bucca, who hold the chairs of Geology in the schools of Florence and Catania respectively; Professor Decio Vinciguerra, lecturer on the vertebrata in the University of Genoa, who represented the Marchese Doria, President of the Geographical Society, under whose auspices the expedition has been equipped; and a large proportion of physicians and surgeons. Incidental to the occasion, it was remarked how many among the tropical explorers of all nationalities are of medical training and even graduation — equatorial Africa literally teeming with them, from the medical missionaries sent out by the Edinburgh school (the parent of that field of humanitarian enterprise) to those of Germany and France, Italy herself numbering, particularly in the regions south and west of Abyssinia, not a few young graduates in the healing art whose ambition has drawn them to those wilds in the interest of climatology and natural history in its largest sense. Indeed, the extent to which biological study, with a view to its further prosecution in the tropics, has fascinated the Roman medical school may be inferred from the Società Romana per gli Studi Zoologici, which was holding its general meeting almost contemporaneously with the symposium of the Circolo dei Naturalisti. At the former gathering a series of original papers, short, indeed, but full of interesting observation, was read on such themes as the Zoological and Anatomo-Histological Characteristics of the Filaria Labiata, by Dr. Cardorelli; on the different Bryozoa Italiana, by Professor Neviana; on the New Italian Lakes (due to seismic convulsion), by Professors De Vescovi and Meli of the Roman school; and on a rare Crustacean found near Terracina by the Commendatore Luigi Ravani.

Death by Lightning.

The "apocalyptic weather" we have been having, more or less all through the spring, has latterly been characterised by peculiarly violent thunderstorms, accompanied by fatal injuries from lightning stroke quite worthy of being classed with those very remarkable cases recorded in THE LANCET of May 26th, 1894, and of Nov. 24th of the same year, the latter from the pen of Mr. R. H. E. Knaggs, M.R.C.S. Eng., Government medical officer, Trinidad, West Indies. Death from this cause may, as Mr. Knaggs observes, be rare, but that is when prompt and effective medical aid happens to be near. Unfortunately those cases just reported from the Roman and other provinces of Italy occurred at a distance from the local "dispense" and even from human habitation, excluding the sufferer from all chance of relief under the shock.

"Suicide from Overpressure."

I hear from Padua that a student of medicine in the fifth year of his curriculum has committed suicide with a revolver discharged through his temple, because he was unable to satisfy his examiners in pathological anatomy. On the evening of the tragic occurrence a mass meeting of undergraduates, after a stormy discussion, passed an "ordine del giorno" protesting against the "eccessivo rigore" of the Professor of Anatomy, openly accusing him of having driven the unfortunate student to put an end to his life. This opinion, I need hardly say, is not shared by those best qualified to judge—it being a notorious fact that the Italian schools do not repel by their "eccessivo rigore," but that their teaching and examining staff are laudably anxious to improve the standard of professional qualification and regret the time consumed by so many of the undergraduates in demonstrations by no means academic in their nature.

June 15th.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

Blindness caused by a Vermifuge.

IN the issue of THE LANCET of April 13th I mentioned a case of blindness caused by a vermifuge. A man aged forty-four years, suffering from abdominal pain, happened to read an advertisement of an apothecary in Budapest, who recommended a remedy against tænia solium and described all the symptoms in popular language. After a dose of castor oil the patient took thirty-two capsules of the vermifuge, each of which contained 0·25 gramme (= 4 grains) ethereal extract of malefern and a like amount of pomegranate root bark. In the evening he fainted, and when admitted to hospital was found to be suffering from mydriasis and total want of perception of light. Some six weeks ago he left the hospital and has not recovered his eyesight. This case has become a political event at Budapest. The blind man claimed damages, and was supported by the Socialist party, which convoked meetings for the purpose of giving publicity to the circumstances. The meetings were broken up by the police, but it is to be expected that the courts will uphold the claim of the sufferer, particularly as the pharmaceutical profession is privileged and limited by the Government, and the Austria-Hungarian Pharmacopœia expressly forbids apothecaries to sell remedies such as the above mentioned without medical prescription.

Atony of the Intestine.

At the last meeting of the Vienna Medical Club Dr. Federn delivered a lecture on the above subject. He recognises three forms of atony: (1) insufficient action of the intestine, where the fæces accumulated in the large intestine are not discharged within twenty-four hours; (2) indolence of the intestine, where the patient is suffering from inveterate constipation; and (3) partial atony, where a portion of the intestine never discharges its contents. Atony is to be diagnosed only by percussion of the large intestine, the

patient lying on his back with his knees flexed; the percussion note is dull. After a laxative the general area of dulness is increased in consequence of the coalescence of the smaller patches of dulness. The treatment consists of faradaisation of the intestine and massage; laxatives are to be prescribed only when these methods have proved unsuccessful.

Vienna Medical Society.

At a recent meeting of this society Dr. Hammerschlag spoke on the subject of Cancer of the Stomach. His conclusions were based on thirty-seven cases of carcinoma and three hundred cases of other disorders. In cases of contraction of the stomach carcinoma may be certainly diagnosed without any clinical symptoms by examination of the gastric contents, which show a constant deficiency of free hydrochloric acid, and an excess of lactic acid with a diminution of pepsin. Histological examinations may show atrophy of the pepsin glands.—Dr. Pal read a paper on the Innervation of the Intestines. Experiments give discordant results, especially with respect to the effect of the irritation of the vagus nerve. Besides the retarding centre in the lower cervical and the upper thoracic spinal cord, he has, he said, proved the existence of another retarding centre. He has observed the condition of the intestine before and after section of the lower cervical and upper thoracic spinal cord, and then combined this section with that of the splanchnic nerve. Peculiar spontaneous movements of the intestine resulted, and by irritation of the vagus this was increased.—Dr. Rille showed a patient affected with Alopecia and Scleroderma who had completely lost the hair from all parts of his body. In addition to absolute baldness of the scalp he had neither eyebrows, eyelashes, nor hairs in the external auditory canal. Formerly he had a well-developed beard, but at present he possesses only a few hairs on the upper lip and at the angle of the lower jaw; the extremities even show absence of the minute hairs, and on the affected places atrophy of the pigment may also be observed. The scleroderma is distributed as follows: on the right lower extremity from the crest of the ilium to the edge of the sole of the foot the skin is diffusely and symmetrically thickened and permeated by numerous yellow pigmented spots. Round the knee the skin is thinned and without pigment, being also in an atrophic stage. A central trophic disturbance is supposed to have caused these conditions. The alopecia has existed for four years and began with the form of area Celsi; the scleroderma has existed for three years. Recovery is doubtful, though Michelson has known it to occur even after sixteen years.

June 17th.

RUSSIA.

(FROM OUR OWN CORRESPONDENT.)

Approaching Centenary of the St. Petersburg Army Medical Academy.

IT is officially announced that the centenary of the St. Petersburg Academy of Military Medicine will be celebrated on Dec. 18th, 1898. The exact date of its foundation is not known, but the day selected is the anniversary of the signing of the imperial *ukaz* permitting the building of the academy. The Emperor Paul was then on the throne. The original name of the institution was the St. Petersburg Medico-Chirurgical Academy, which was subsequently changed to its present name. The first year in which its diploma was granted was the year 1800, and from the year 1801 begin the regular protocols of the conferences of the academy, which are now preserved in its archives. Its present professors will issue two historical works to commemorate the centenary. One will be a "Historical and Statistical Account of all the Separate Foundations and Chairs of the Academy"; the second will be a "History of the Academy during the Hundred Years of its Existence." The last is to be the work of Professors Ivanofski and Kosorotof. A medal will be cast to mark the occasion and a *jeton* will be given to all who are present at the centenary commemoration.

A Diagnostic Sign in Death from Cold.

Dr. Vishnevski[1] points out that an almost infallible indication that cold has been the sole cause of death is found in the occurrence of numerous hæmorrhages in the mucous membrane of the stomach. He found them in forty cases out of forty-four (91 per cent.). The hæmorrhages varied in number from 5 to 100, and in size from that of a grain of corn to that of a pea; they were round or oval; the distance between them was from one to two inches; the hæmorrhages were immediately under the surface; they could be easily scraped away, leaving the membrane almost normal in appearance. The mucous membrane of the stomach was congested and generally thickened and in folds. Dr. Vishnevski, in the course of 900 necropsies, had found these appearances only in the forty cases mentioned. They never occur in death from other causes, though the body be exposed to cold at the time of, or after, death. He has been able to produce the same appearances artificially in seven mice and four guinea-pigs.

[1] In the Journal of General Hygiene and Legal and Practical Medicine.

Death of Dr. Eliseief.

The death occurred last week of Dr. Alexander Eliseief at the early age of thirty-six. He was best known as a traveller and anthropologist. His travels led him to most parts of Russia, to Asia Minor, Japan and the East, and to Africa, where he endeavoured in 1893 to explore Abyssinia and the Soudan. This expedition was unsuccessful; his caravan was attacked and he barely escaped with his life. On his flight through the desert he suffered from heat-stroke, which affected his health for some time. He contemplated a second visit to Abyssinia this year. At the last meeting of the Anthropological Society in St. Petersburg Dr. Eliseief exhibited a Somali boy whom he had brought back with him from Africa.

The Buriats.

At the same meeting Dr. Shendrikofski communicated a very interesting account of the Buriats, a race inhabiting from time immemorial the regions round Lake Baikal in Siberia. They are an entirely pastoral race. They all, men and women, practically live in the saddle. In summer they dwell on the plains; in winter, when the snows come, they retire to the hills and live in *yurts*, huts built of wood or felt, small, rickety, and dirty. They drink sour milk and "brick" tea. They seldom eat meat, but when they do they eat it in enormous quantities, 6 lb. or 7 lb. at a time, without salt or bread. They are insatiable smokers, men and women, even children indulging inordinately. There is scarcely any social life among them. Each *ulus*, of five or six families, generally related, lives its own separate existence. Their religion was formerly Shamanism, but about a century and a half ago the Mongol Llamas were permitted to preach Buddhism among them, and Shamanism has now but few followers. The Buddhists have a Llama of their own, appointed by the Dalai Llama of Tibet, in a monastery near Selenginsk. In this monastery is a school of divinity and one of medicine. According to the medical teaching of the Llamas most diseases arise from disorders of the liver, which is looked upon as the most important organ in the body. Diagnosis, however, depends solely upon the condition of the pulse. The Buriats suffer mostly from scrofula and scurvy. Skin diseases are rare, notwithstanding their want of cleanliness. Idiotism, cretinism, malformations, and mental disorders are not uncommon, possibly on account of frequent intermarriages; but the race is not dying out, as is shown by the fact that between 1863 and 1893 their numbers increased by 20·4 per cent.

The International Monument to Lavoisier.

The proposal of the French Academy to start an international subscription to erect a monument to Lavoisier has found a warm advocate in Professor Mendileief, so far as Russia is concerned. The Emperor has appointed a committee to organise the collection of subscriptions from all parts of the country.

St. Petersburg, June 2nd (14th).

EGYPT.

(FROM OUR OWN CORRESPONDENT.)

Vaccine Institute and Small-pox.

SMALL-POX in Egypt and the Soudan is called "gadriy," an Arabic word coming from the root "to sprout," and evidently referring to the eruption. Vaccination is called "tilkyha," or fecundation, the same word being used for the artificial conception of the date tree by introducing the pollen of the male into the female. Happily in these countries

there is no anti-vaccination party, for the disease has been too recently rife for the adult population to have forgotten what a scourge it is. Twenty years ago the Circassian slaves in harems were mostly marked by small-pox, but now this is very rare, and since the English occupation there have been many instances of the disease entering harems and killing unvaccinated blacks while the vaccinated Circassians live. The natives have great faith in vaccination, though many parents would like the operation postponed until the child is not of tender years. This is only too natural in a country where infant mortality is dangerously high, especially during the summer heat. Revaccination of adults is not yet practised, except in the army, Government schools, &c. Curiously enough, the Bedouins, who are beyond the reach of practical vaccination by Government medical officers, are still in a state of evolution and practise sometimes inoculation from the small-pox patient, and sometimes vaccination from a cow. The operator uses a sharpened ostrich feather and performs upon the patient's arm. The Nubians are beginning now to appreciate vaccination, but until the last few years they knew nothing of it and practised inoculation, which they perhaps learnt from their Turkish ancestors. In Cairo itself vaccination is performed gratis by Government medical officers in the twelve districts of the city, and to avoid some of the horrors of the past, among which syphilis was not unknown, a vaccine establishment for the supply of animal lymph for all Egypt was opened in the grounds of the Sanitary Department last March. The little institute is under the control of Mr. Littlewood and Mr. Branch, the veterinary advisers to the Government. £600 only was spent on the building of a stable with four stalls, operating-room, well-furnished laboratory, &c. Already 5000 vaccinations and revaccinations have taken place, with great success, and it is intended to sell lymph to private practitioners, who at present have to procure their animal vaccine from Europe. Anyone who has vaccinated much in hot countries knows the importance of using fresh lymph; and it is difficult to praise too highly this recent development of English energy and perseverance.

Infectious Diseases.

By glancing at the weekly statistics published by the Sanitary Department it can easily be seen that the battle against small-pox is by no means concluded. During the last seven weeks there have been 379 entries into hospital tents in twenty-one different villages, mostly in Lower Egypt, and of these patients 46 have died. From one of these villages in the Delta there were 72 entries in one week, 7 in the next, and 73 entries in the third week. During the same period there have been 41 cases reported in Cairo, including three or four in the army of occupation. Typhus and relapsing fever are present every spring in Egypt, and the same seven weeks show a record of 305 cases with 51 deaths occurring in some nine villages and in Cairo, which furnished 19 cases. One of the prisons in Upper Egypt also contributed a few cases. Measles is reported from one village only; but 185 cases of influenza, none of them fatal, occurred during the first fortnight of May among the Egyptian troops at Assuan, Korosko, and Wady Halfa. The last time this disease was there in force was in the spring of 1892, when the contemplated manœuvres had to be abandoned in consequence of the hundreds of soldiers laid low.

Pilgrimage to Mecca.

Anything in the direction of State regulation of the annual visit to the Holy Places must be welcomed. This year cholera for several weeks has been threatening the pilgrims at Mecca, and as to-day is the anniversary of the sacrificial feast, when perhaps some 80,000 Moslems will kill about the same number of sheep, buffaloes, and camels in a reeking valley where the burning sun by day and the vultures and dogs by night are the only sanitary agents, we may expect at any time to hear of the "explosion" to which we are becoming sadly accustomed. Egypt has this year made a move for the first time in the right direction and has tried to discountenance the indiscriminate "Haj" of paupers by issuing a circular in April last to all the mudirs and governors inviting them to remind intending pilgrims of a verse in the Koran: "Do not run ahead of danger." Whether it was the effect of the influence of provincial magnates, or whether it was the recollection of the 1893 cholera at Mecca, which put many Egyptian families into mourning, it is certain that hundreds of the faithful hastened to cancel their passages and remitted the sacred duty to a more convenient season. Another improvement this year is that the quarantine station at El Tor has just been inspected for the first time by English officials. Many adverse criticisms on El Tor have been written of late years, and it is not to the credit of the quarantine department that the abuses have so long been allowed to continue. Nothing can be better than to compulsorily wash the returning pilgrims and sterilise their effects and isolate their sick; but this must be done systematically, rapidly, and thoroughly if it is not to be a ridiculous farce. We must hear no more of pilgrims being detained for several weeks to be purified in the desert, and eventually being allowed to reach Cairo with bottles of Zem-zem water and its contained sewage, perhaps reeking with cholera bacilli. It is believed that this year the absurd custom of lining the banks of the Suez Canal with Egyptian camelry will be dispensed with. These troops were employed to watch ships containing pilgrims in spite of their having undergone the prescribed quarantine in two camps.

Cairo, June 3rd.

CANADA.

(FROM OUR OWN CORRESPONDENT.)

College Items.

THE third annual meeting of Trinity Medical Alumni Association was recently held in the Convocation Hall. A most interesting programme was presented. Among those present, and from whom the association heard valuable papers, were Professor Joseph Price, Philadelphia, the Philosophy of Abdominal and Pelvic Surgery; Professor Ferguson, Chicago, Radical Cure of Hernia; and Professor Roswell Park, Buffalo, Infection within the Cranium. Professor Peterson, M.A., LL.D., Principal of University College, Dundee, Scotland, has accepted the position of Principal of McGill University, Montreal, in succession to Sir J. W. Dawson. I think the University is to be congratulated upon the choice of so learned and able a person as Professor Peterson. The total number of students registered in the medical faculty of McGill University during the past session was 401, each province in the Dominion having representatives; twenty-four were from the United States.

Report of the Royal Commission on Prohibition.

During the past three years this commission has been prosecuting its work, and the findings and report have recently been presented to Parliament. The majority report is adverse to prohibitory law, as being prejudicial to the business, industrial, and commercial interests. The system of licence and regulation should not be departed from. A prohibitory law partakes too much of the character of coercive legislation on a matter in regard to which a very large portion of the people consider they are qualified and entitled to judge for themselves. As regards compensation, the commissioners consider it could not be avoided under prohibition. The treatment of habitual drunkards requires the most anxious and careful attention. No merely financial considerations should, in their opinion, prevent the best remedial measures being adopted to reclaim the victims of intemperance. That the methods at present in vogue are not only inefficient but, as a rule, demoralising, is the almost unanimous opinion of those who have to administer the law. The licensing of saloons should stop, there being no justification for their existence founded upon necessity, and it is certain that most of the evils which arise out of the immoderate use of intoxicants have their origin or are encouraged by the existence of saloons. The licensing of the compounding or mixing various kinds of liquors to produce new brands should be discontinued. Adulteration is largely carried on by the retailers. The minority report of the Rev. Mr. McLeod recommends the immediate passage of a prohibitory law. Clause 2 states that the evidence makes it clear to him that the effect of the liquor traffic has been, and is, seriously detrimental to all the moral, social, and national interests of the nation; that the measures employed to lessen, regulate, or prohibit the traffic have been of value only in proportion as they have approximated in their operation to the absolute prohibition of the traffic. I fear that the reverend commissioner has prejudged a great question which he has been delegated to inquire into first and then to deliver his judgment. Taking the report as a whole, I feel that the commissioners are to be congratulated upon the thoroughness of their inquiries, and that as a result of the commission improvements will follow in legislation on this important question.

Toronto, June 10th.

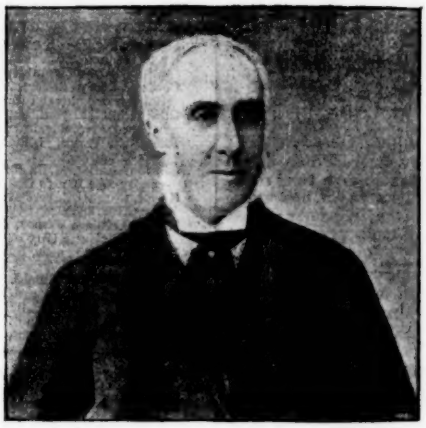
Obituary.

SIR GEORGE HORNIDGE PORTER, BART., M.D. T.C.D., F.R.C.S. IREL., LL.D. GLASG.,

SURGEON-IN-ORDINARY TO THE QUEEN IN IRELAND; REGIUS PROFESSOR OF SURGERY IN THE UNIVERSITY OF DUBLIN.

THE surgical profession, not only in Ireland, but in the whole of Great Britain, has sustained a severe loss by the death of Sir George Hornidge Porter, who died last Sunday, June 16th, at his residence in Merrion-square, Dublin.

Sir George Hornidge Porter was the only son of the late Mr. William Henry Porter, Professor of Surgery in the Royal College of Surgeons, Ireland, was born in 1822 and was educated in the school of the Royal College of Surgeons and in the University of Dublin, where he graduated in Arts and Medicine, receiving the degrees of Bachelor of Arts and Bachelor of Medicine in 1845. In 1849 he was elected surgeon to the Meath Hospital, where he was engaged in active operative practice for nearly half a century. In 1860 he was appointed Examiner in Surgery in the Royal College of Surgeons in Ireland, of which body he was President in 1868, the year after the termination of his examinership. During this period also he was elected consulting surgeon to the Coombe Lying-in Hospital (1861) and surgeon to Simpson's Hospital, in the room of Mr. Hutton, in 1866. In the year 1869 Sir George Porter was appointed Surgeon-in-Ordinary to the Queen in Ireland. In 1876 he received the appointment of consulting surgeon to St. Mark's Ophthalmic Hospital, and in 1881 to Dr. Steevens' Hospital. The honour of knighthood was conferred upon him by the Queen in the year 1883 "to mark his high position among the surgeons of the United Kingdom." In 1888 the University of Glasgow gave him the degree of LL.D. (*honoris causâ*), and in 1889 he was created a baronet "in recognition of his distinguished position in the surgical profession." Between the years 1857 and 1878 Sir George Porter made many contributions to the literature of his profession. These were chiefly accounts of operations published in the *Dublin Quarterly Journal of Medical Science*, and dealt with diseases and injuries of the upper and lower limbs, the jaw, and especially the bladder. Sir George Porter was consulting surgeon to six different hospitals—Dr. Steevens', Sir Patrick Dun's, The Rotunda, St. Mark's Ophthalmic, The Coombe Lying-in, and the National Children's.



SIR GEORGE HORNIDGE PORTER, BART.

This record of work sufficiently shows that in Sir George Porter we have lost a man of the highest rank in his profession, and one, moreover, who looked only to his profession, its practise and its literature, to exalt him among his fellow-citizens. By heredity and by profession a surgeon, his single-minded devotion was rewarded by unqualified success. He was, indeed, a member of a distinguished roll of surgeons, and his life formed a connecting link between the past and present, his career serving alike as an incitement to the younger members of the profession and a useful and pleasant source of reminiscence to the older. Very few surgeons have won more solid honours in their profession or held more honourable and numerous appointments with greater satisfaction to those who thereby benefited by the services they obtained—the bare list we give above proves this to demonstration—and none have been more beloved by his friends, his patients, and his pupils. And this means a great deal, for we are proud to know that most of the distinguished leaders of the medical profession have been regarded by their disciples and their patients with the highest affection, so that in saying that Sir George Porter was so regarded to an extent that we believe unsurpassed we are speaking no light eulogy of him. His advice and skill—and, for that matter, his purse—were ever at the disposal of those of his poorer brethren who required any or all of them; and while his geniality and kindness of heart appealed more particularly to some, to others his wide range of surgical learning and his practical ability with knife or pen may remain his memorable traits. One small episode in his surgical career is worth mentioning, because through it his name will always be associated with one of the most lurid passages in his country's history. In conjunction with Dr. Edward Hamilton and Dr. Lambert Hepenstal Ormsby, he made the official examination of the murdered bodies of Lord Frederick Cavendish and Mr. Burke after the Phœnix-park atrocities.

In his private life Sir George Porter was also an important citizen. He was a justice of the peace and a deputy-lieutenant for the county of Wexford, where he had a large landed estate, and served the office of high sheriff some fifteen years ago. He married Julia, second daughter of a Mr. Isaac Bond of Flimby, Cumberland, by whom he had one child, Mr. William Henry Porter, the present baronet, a barrister-at-law and an accepted candidate for the Tower Hamlets. Although, as our present estimate of old age goes, Sir George Porter was not a very old man, his death cannot have been unexpected among his friends. He had during several winters suffered severely from bronchitis, and during the past six months had been in very indifferent health, although he could not be persuaded to take due rest and care of himself. But distressing attacks of dyspnœa at last became so frequent that he consented to go to Torquay with a view to the improvement of his pulmonary condition. While there he did not improve, and on being removed back to his home made but a short rally, dying of cardiac failure supervening upon his respiratory troubles. The funeral took place on Thursday last at Whitechurch, Rathfarnham.

HANS WILHELM MEYER, M.D.

WE greatly regret to announce the death of Etatsraad Dr. Hans Wilhelm Meyer of Copenhagen in his seventy-second year, which occurred from typhoid fever at Venice on June 3rd last. Although, perhaps, not one of the greatest of the medical lights of the age, it must yet be accorded that

he was one of the greatest benefactors of his day, in that he was the first to ascribe full importance to that hypertrophy of the lymphoid tissue in the post-nasal space for which his nomenclature of adenoid vegetations is now almost universally adopted. Probably Czermak in 1860 was the first who actually saw and described the condition, while in 1865 Voltolini reported a case in an adult, where he associated deafness with the growths on the posterior naso-pharyngeal wall; and in the same year Loewenberg described three such instances, also associated with deafness, and assumed that the neoplasms were probably identical in structure with the so-called granulations of granular pharyngitis. But it was reserved to Meyer to emphasize the immense importance such hypertrophies assume in childhood, and to describe fully the proper methods of operation, the elements of prognosis, and the essential points for the prevention of recurrence—points only too often forgotten even in this day, when the number of post-nasal operations performed daily in London is enormous. In 1868 Meyer contributed his first complete statement of the subject,[1] and in 1870 this paper was communicated to the Royal Medical and Chirurgical Society by the late Professor John Marshall, F.R.S., and is published in Vol. LII. of the society's Transactions. But it was perhaps only after reading his paper at the International Medical Congress, held in London in 1882, that the profession in this country fully awoke to the importance of the subject, and now, twenty-seven years since the publication of Meyer's first paper, although the opposition to the new discovery has been as strong as would be expected in certain quarters, there are probably not many who have not seen sufficient results of operation to be compelled to accept those growths as one of the most important factors with which we have to deal in considering the diseases of children. Many are now going through life handicapped with incurable ear disease from which they would have been saved had Meyer's work been done earlier; and it is to be hoped that many more will realise that their whole lives have been changed for them, thanks to the patient work of Wilhelm Meyer. It is, however, curious to note that he himself, after the examination of 2000 school children, calculated the growths to be present in not more than 1 per cent., although we believe that most specialists would now affirm either that he had greatly underrated the frequency or that the disease has become extraordinarily more prevalent since his time.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen were elected examiners in the subjects indicated for the ensuing collegiate year at the ordinary meeting of the Council on Thursday, the 13th inst.:—

FIRST EXAMINATION.

ELEMENTARY ANATOMY.

Hutchinson, Jonathan, jun., F.R.C.S. Eng., London Hospital.
Jessop, Walter H. H., F.R.C.S. Eng., M.A., M.B. Camb., St. Bartholomew's Hospital.
Roughton, Edmund W., F.R.C.S. Eng., St. Mary's Hospital.
Waterhouse, Herbert F., F.R.C.S. Eng., M.D., C.M. Edin., Charing-cross Hospital.

ELEMENTARY PHYSIOLOGY.

Bradford, John Rose, M.R.C.S. Eng., M.D., D.Sc. Lond., F.R.S. University College, London.

ELEMENTARY BIOLOGY.

Buckmaster, George A., M.R.C.S. Eng., M.A., M.D. and D.P.H. Oxon., St. George's Hospital.
Dean, Henry Percy, F.R.C.S. Eng., B.Sc., M.B. and B.S. Lond., London Hospital.

SECOND EXAMINATION.

ANATOMY.

Lucas, Richard Clement, F.R.C.S. Eng., M.B. and B.S. Lond., Guy's Hospital.
Makins, George Henry, F.R.C.S. Eng., St. Thomas's Hospital.
Walsham, William Johnson, F.R.C.S. Eng., St. Bartholomew's Hospital.
Young, Alfred Henry, F.R.C.S. Eng., M.B. and C.M. Edin., Owens College, Manchester.

PHYSIOLOGY.

Halliburton, Wm. Dobinson, M.R.C.S. Eng., M.D. and B.Sc. Lond., M.R.C.P. Lond., F.R.S., King's College Hospital.
Power, D'Arcy, F.R.C.S. Eng., M.A. and M.B. Oxon., St. Bartholomew's Hospital.
Spencer, Walter George, F.R.C.S. Eng., M.B. and M.S. Lond., Westminster Hospital.

[1] Hospitals Tidende, Nov. 4th and 11th.

THIRD AND FINAL EXAMINATION.

MIDWIFERY.

Duncan, William, F.R.C.S. Eng., M.R.C.P. Lond., M.D. Brussels, Middlesex Hospital.
Handfield-Jones, Montagu, M.R.C.S. Eng., M.D. Lond., M.R.C.P. Lond., St. Mary's Hospital.
Herman, George Ernest, F.R.C.S. Eng., F.R.C.P. Lond., M.B. Lond., London Hospital.
Routh, Amand, J. M'C., M.R.C.S. Eng., M.D. and B.S. Lond, M.R.C.P. Lond., Charing-cross Hospital.

FIRST PROFESSIONAL EXAMINATION FOR THE FELLOWSHIP.

ANATOMY.

Haslam, William Frederick, F.R.C.S. Eng., Mason College, Birmingham.
Jacobson, Walter H. A., F.R.C.S. Eng., M.A., M.B. and M.Ch. Oxon., Guy's Hospital.
Lockwood, Charles Barrett, F.R.C.S. Eng., St. Bartholomew's Hospital.
Sutton, John Bland, F.R.C.S. Eng., Middlesex Hospital.

PHYSIOLOGY.

Lowne, Benjamin Thompson, F.R.C.S. Eng., Middlesex Hospital.
Schafer, Edward Albert, M.R.C.S. Eng., F.R.S., University College, London.
Starling, Ernest Herbert, M.R.C.S. Eng., M.D. and B.S. Lond., Guy's Hospital.
Stirling, William, M.D., C.M. and B.Sc. Edin., F.R.S. Edin., Owens College, Manchester.

DIPLOMA IN PUBLIC HEALTH.

PART I.

Turner, George, M.R.C.S. Eng., L.R.C.P. Lond., M.B. and D.P.H. Cantab., Guy's Hospital.

PART II.

Seaton, Edward, M.R.C.S. Eng., M.D. Lond., F.R.C.P. Lond., St. Thomas's Hospital.

The following gentlemen, having passed the necessary examinations, and having conformed to the by-laws and regulations, have been admitted "Fellows" of the College:—

Bennett, William Edward, L.R.C.P. Lond., Mason College, Queen's and General Hospitals, Birmingham, and St. Bartholomew's Hospital; date of Membership, July 28th, 1890.
Cooper, Percy Robert, M.B., Ch.B. Vict., L.R.C.P. Lond., Owens College and Royal Infirmary, Manchester; July 27th, 1893.
Cuff, Archibald William, M.B., B.C. Cantab., L.R.C.P. Lond., Cambridge University and St. Thomas's Hospital; July 27th, 1893.
Furnivall, Percy, L.R.C.P. Lond., St. Bartholomew's Hospital; Nov. 10th, 1892.
Gordon, James, M.B., B.S. Melb., L.R.C.P. Lond., Melbourne University and King's College Hospital; May 10th, 1894.
Green, Charles Robert Mortimer, L.R.C.P. Lond., London Hospital; May 27th, 1885.
Harris, William James, M.B. Cantab., L.R.C.P. Lond., Cambridge University and Guy's Hospital; May 11th, 1893.
Ingall, Frank Ernest, L.R.C.P. Lond., London Hospital; July 30th, 1891.
Levick, Harry Driffield, M.B. Lond., L.R.C.P. Lond., Anderson's College, Glasgow, and St. Thomas's Hospital; Feb. 12th, 1891.
Lister, William Tindall, M.B., B.C. Cantab., L.R.C.P. Lond., Cambridge University and University College Hospital; May 9th, 1895.
Lockett, George Vernon, M.B. Edin., L.R.C.P. Lond., Royal College of Surgeons of Edinburgh and Edinburgh University; May 9th, 1895.
MacLeod, Charles Edward Alexander, L.R.C.P. Lond., Westminster Hospital; July 30th, 1891.
Marson, Francis Herbert, M.B. Durh., L.R.C.P. Lond., St. Bartholomew's Hospital, Mason College, Queen's and General Hospitals, Birmingham, Durham University and Royal Infirmary, Newcastle-on-Tyne; Nov. 10th, 1892.
Michell, Robert Williams, M.B., B.C. Cantab., Cambridge University and St. Bartholomew's Hospital; not a member.
Rowell, George, M.D. Durh., Durham University, Royal Infirmary, Newcastle-on-Tyne, St. Bartholomew's and University College Hospitals; Jan. 27th, 1870.
Shillitoe, Arthur, M.B., B.C. Cantab., L.R.C.P. Lond., Cambridge University and Guy's Hospital; Nov. 9th, 1893.
Sloane, John Stretton, M.B. Lond., L.R.C.P. Lond., St. Bartholomew's Hospital; May 11th, 1893.
Spencer, Charles George, Surgeon-Lieutenant A.M.S., M.B. Lond., L.R.C.P. Lond., University College Hospital; Aug. 1st, 1892.
Stevens, Thomas George, M.D. Lond., L.R.C.P. Lond., Guy's Hospital; July 28th, 1890.
Walton, Herbert James, L.R.C.P. Lond., St. Bartholomew's Hospital; May 11th, 1893.
Warner, Thomas, L.R.C.P. Lond., King's College Hospital; Feb. 11th, 1892.
Webb, James Ramsay, M.B., B.S. Melb., Melbourne University and London Hospital; Nov. 10th, 1892.
Wightman, Cecil Frank, L.R.C.P. Lond., St. Bartholomew's Hospital; Feb. 9th, 1893.

Three other gentlemen passed the Examination, and will be admitted Fellows at future meetings of the Council on attaining the legal age of twenty-five years. Sixteen were referred for six months and four for one year.

The following gentlemen, having passed the necessary examinations, were admitted Licentiates in Dental Surgery:—

Atkinson, Frederick George, Charing-cross Hospital and the Dental Hospital of London.
Bateman, Julius Barthroppe, Charing-cross Hospital and the Dental Hospital of London.
Bates, George Llewellyn, Charing-cross Hospital and the Dental Hospital of London.
Bellaby, Francis Montagu FitzWalter, Owens College Dental Department and Victoria Dental Hospital, Manchester.

Bennett, John Henry, Charing-cross Hospital and the Dental Hospital of London.
Bettridge, Albert Edward, Charing-cross Hospital and the Dental Hospital of London.
Booth, George Henry, Owens College Dental Department and Victoria Dental Hospital, Manchester.
Bowtell, Stewart Ross, Charing-cross Hospital and the Dental Hospital of London.
Bowden, George Henry, Guy's Hospital.
Burton, Percy, Middlesex Hospital and the Dental Hospital of London.
Cahill, Alfred, Guy's Hospital.
Cannell, Edward Kemp, Charing-cross Hospital and the Dental Hospital of London.
Cardwell, Ernest Edward, Charing-cross Hospital and the Dental Hospital of London.
Collett, Albert James, Guy's Hospital.
Cook, Horace, Guy's Hospital.
Dalton, John Willie, Charing-cross Hospital and the Dental Hospital of London.
Day, Ernest Frank, Charing-cross Hospital and the Dental Hospital of London.
Gosschalk, Meyer, Charing-cross Hospital and the Dental Hospital of London.
Jenkins, Thomas George, Middlesex Hospital and the National Dental Hospital.
Johnston, William, Charing-cross Hospital and the Dental Hospital of London.
Keall, Clarence Albert Harry, Guy's Hospital.
Little, Frederick, University College and Dental Department, Royal Infirmary, Bristol.
Lean, Norman Henry, Middlesex Hospital and the Dental Hospital of London.
Mackley, Herbert Edwin, Middlesex Hospital and the Dental Hospital of London.
Masters, Edwin Clarence Platt, Middlesex Hospital and the National Dental Hospital.
Mathews, John Hilditch, Charing-cross Hospital and the Dental Hospital of London.
Morgan, Edwin, Guy's Hospital.
Mountford, Edwin Henry, Charing-cross Hospital and the Dental Hospital of London.
Muhlenkamp, Fritz Heinrich Arthur, Guy's Hospital.
Nowell, Walter Salmon, Middlesex Hospital and the Dental Hospital of London.
Pearse, Cecil Gilbert, Charing-cross Hospital and the Dental Hospital of London.
Pedler, William Frederick, M.R.C.S. Eng., St. Bartholomew's Hospital and the National Dental Hospital.
Price, George Herbert, Charing-cross Hospital and the Dental Hospital of London.
Quinby, Arthur Henry, Liverpool Dental Hospital and Liverpool Royal Infirmary School of Medicine Dental Department.
Shields, John Lewis, Liverpool Dental Hospital and Liverpool Royal Infirmary School of Medicine Dental Department.
Stevens, David Sydney, Guy's Hospital.
Strand, Alick Coudell, M.R.C.S. Eng., Middlesex Hospital and the Dental Hospital of London.
Sugden, Thomas Edward, Middlesex Hospital and the National Dental Hospital.
Taylor, Harry Percy, Guy's Hospital.
Theakstone, Joseph, Owens College Dental Department and Victoria Hospital, Manchester.
Tice, Henry William, Middlesex Hospital and the National Dental Hospital.
Tindal, John, Charing-cross Hospital and the Dental Hospital of London.
Trick, Walter Henry, Guy's Hospital.
Wallace, James Sims, B.Sc., M.D., C.M. Edin., Glasgow Dental Hospital, the Dental Hospital of London, and the National Dental Hospital.
Wallis, Herbert, Guy's Hospital.
Williams, Charles Henry Hughes, Charing-cross Hospital and the Dental Hospital of London.

Fifteen gentlemen were referred back to their professional studies. All candidates referred at this examination will be required to produce, before admission to re-examination, a certificate of three months' additional study at a general hospital and a special dental hospital, the precise attendances required at each hospital being left to the discretion of the respective hospital authorities.

UNIVERSITY COLLEGE HOSPITAL.—Sixty sisters and nurses from this hospital enjoyed a day's holiday at Richmond on Saturday last. We strongly commend this excellent plan for ensuring a pleasant day's recreation for nurses to the secretaries of those institutions where a summer excursion is not in the annual programme.

CONSECRATION OF THE RAHERE LODGE OF FREEMASONS.—H.R.H. the Prince of Wales, Most Worshipful Grand Master (president of St. Bartholomew's Hospital) has been graciously pleased to signify his intention of being present at the consecration of the Rahere Lodge, No. 2546, at St. Bartholomew's Hospital on the afternoon of Saturday, 29th inst. Freemasons who are, or who have been, connected with the hospital, and who desire to be present at the ceremony, are requested to communicate at once with Mr. T. G. A. Burns, the secretary, 25, Welbeck-street, W., or with Mr. D'Arcy Power, the treasurer-designate, 26, Bloomsbury-square, W.C. Every application should state the name and number of the member's lodge as well as his standing in the craft. The number of tickets is necessarily limited to the accommodation of the great hall of the hospital.

MEDICAL MAGISTRATE.—Dr. James Mullin of Cardiff has been placed on the Commission of the Peace for that borough.

AN ENTERPRISING DENTIST.—A registered dentist practising in North London (Mr. J. S. Armitage, 1, Colva-street, Dartmouth-park) was on May 23rd mulcted in two penalties of £5 each at the Bloomsbury county court, at the instance of the Pharmaceutical Society, for the sale of poisons, information having been given to the Pharmaceutical Society by the London and Counties Medical Protection Society.

At the annual general meeting of the members of the South-Eastern Branch of the British Medical Association held at Hastings on Wednesday, June 12th, donations of twenty guineas each were voted to the Royal Medical Benevolent College and to the British Medical Benevolent Fund. We are glad to observe that these branch organisations are beginning to recognise the work of these two great charities, which do so much for the medical profession.

SUMMER MEETING OF UNIVERSITY EXTENSION STUDENTS AT OXFORD.—The seventh summer meeting of university extension and other students will be held this year at Oxford, and will be divided into two parts, the first lasting from Aug. 1st to Aug. 12th, and the second from Aug. 12th to Aug. 26th. Included in the varied course there will be lectures on natural science during both parts of the meeting, and classes will be formed for practical work in the different divisions. Among those who have promised to lecture are Professors Green and Odling; Drs. Fison and Wade; Messrs. Carus Wilson, Marsh, Groom, and Bourne.

BEQUESTS AND DONATIONS TO HOSPITALS.—The late Mr. Ferdinand W. Arkwright, of Ryder-street, St. James's, London, has bequeathed £200 each to the Warneford and Warwickshire Hospital, the Warwick Dispensary and Cottage Hospital, and the Derby Infirmary Building Fund.—Mr. H. H. Sharland, late of Thavies-inn, London, has bequeathed £1000 each to St. Thomas's Hospital, Guy's Hospital, the Royal Free Hospital, St. Luke's Hospital, and the Hospital for Sick Children, Great Ormond-street, London.—The late Miss Phipps, of Ross, has left by her will £100 towards the funds of the Cottage Hospital, Ross.—Miss Elizabeth Frances Heaven, late of Victoria-park, Manchester, has bequeathed £1000 each to the Children's Hospital, Pendlebury, Manchester; the Royal Infirmary, Manchester; the Southern Hospital, Clifford-street, Manchester; the Ardwick and Ancoats Hospital and Dispensary, Manchester; the Hospital for Incurables, Manchester; the Salford Royal Hospital and the Convalescent Home, Westhill, Southport; and £500 to the Eye Hospital, Oxford-street, Manchester.—Mr. William Stones, late of Ash-grove, Sheffield, has bequeathed £250 each to the Sheffield General Infirmary and the Sheffield Public Hospital and Dispensary, £200 to the Chesterfield and North Derbyshire Hospital, and £100 to the Jessop Hospital for Women, Sheffield.—Dr. Francis B. Hawkins, late of West Knighton, Dorsetshire, has bequeathed £300 of two and three-quarter per cent. Consols to the Dorset County Hospital, and £300 of the like Consols to King's College Hospital, to be applied in instituting, or assisting, a lying-in or maternity hospital in connexion with the said hospital.—The late Mr. W. H. Daubney, of Grimsby, has bequeathed £500 to the Endowment Fund of the Grimsby and District Hospital.—Mr. E. T. Parry, late of Liverpool, has bequeathed £1000 each to the Convalescent Fund respectively of the Royal Infirmary, Liverpool, the Northern Hospital, Liverpool, the Royal Southern Hospital, Liverpool, and the Infirmary for Children, Liverpool.—The late Mr. W. F. Phillips, of Westcliff, Weston-super-Mare, has bequeathed £100 each to the Bristol Infirmary, the Bristol Hospital, the Bristol Children's Hospital, and the Weston-super-Mare Hospital.—Mrs. Catherine Murton, of Bolton, Lancashire, has bequeathed to the Bolton Infirmary securities which will yield £3329.—The late Mr. J. C. Wannop, of Carlisle, has bequeathed £100 each to the Silloth Convalescent Institution and the Carlisle Dispensary.—The late Very Reverend W. R. Freemantle, Dean of Ripon, has bequeathed £1000 in trust to apply the income towards the maintenance of a cottage hospital for the parishes of Middle Claydon, East Claydon, or Steeple Claydon, and also bequeaths £100 each to the Bucks Infirmary at Aylesbury, and Jepson's Hospital at Ripon.—Mr. Chas. G. Holdforth, late of Cookridge, Horsforth, near Leeds, has bequeathed £100 to the Women and Children's Hospital at Leeds.

FOOTBALL FATALITY.—At Paisley, in a match between the St. Mirren Victoria and Fergusiie teams, a member of the former team collided with an opponent, was rendered unconscious and removed to the Infirmary, where he died on Tuesday evening last.

BATHING FATALITIES.—We referred in our last week's issue to the somewhat unusual number of fatalities which had occurred in the present bathing season. Since then three from drowning while bathing are reported. A youth aged seventeen years was drowned in the Thames near Long Wittenham, and another youth, also aged seventeen, at a bathing-place known as Tumbling Bay, Oxford; their bodies were subsequently recovered. Inquests were held on them, and the evidence adduced was that neither could swim. The third case was that of a Revenue officer who, while bathing at the North Wall, Dublin, on Tuesday last, met with a similar sad fate.

BRITISH ORTHOPÆDIC SOCIETY.—The first provincial meeting of this society took place at Liverpool on May 24th. After lunching together at the Adelphi Hotel the members visited the new Royal Infirmary, the Children's Infirmary, and the Southern Hospital, at the invitation of the several staffs. They were then entertained at dinner by Mr. Robert Jones, after which they adjourned to the Medical Institution, where the ordinary meeting was held. A large number of living cases were exhibited, representing torticollis, talipes treated by tarsectomy, wrenching, tenotomy, &c.; also numerous cases of knee, hip, and other joint diseases; several casts and stereoscopic slides were on view, the latter, shown by Messrs. Robert Jones and Thelwall Thomas, being most instructive as showing the advantage of stereoscopic photography in the demonstration of orthopædic measures. Mr. Robert Jones was voted to the chair and several candidates were balloted for and elected. Mr. Tubby (London) read notes of a case of talipes equino-varus, drawing attention to the rotation inwards of the lower end of the tibia and fibula which complicated these cases. He had performed osteotomy of the lower end of the tibia, the limb being afterwards put up in plaster with a satisfactory result. An interesting discussion on the treatment of intractable talipes, equino-varus, opened by Mr. Robert Jones, followed, and the meeting was brought to a close with a hearty vote of thanks to the chairman. The next meeting will be held during the British Medical Association week in London in July next.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

Midwives Registration Bill.

THE Committee stage of this measure, which was set down in the House of Lords for Tuesday, June 18th, has been postponed until Friday, June 28th. When the Bill was mentioned in the House Lord Balfour of Burleigh informed their lordships that there are a number of amendments which the Privy Council desire to see in the Bill.—Lord Playfair, on behalf of the Government, assented to the postponement of the stage. It was, as a matter of fact, found that while there are a few points of really substantive difference which must be discussed in Committee of the whole House, there were, in addition, a large number of amendments in matters of form which the Privy Council desire. Many of these are little more than drafting, but others amount to a re-casting of one or two of the clauses of the Bill. The amendments, being points on where there was no likelihood of controversy, it was agreed that a form of procedure quite well-known in the House of Lords to meet such cases should be adopted. The Bill will be reprinted as amended, and at the next stage, which will be in Committee on re-commitment, and which will be taken on Friday, the 28th, the substantive amendments can be discussed without being hampered by a mass of detail on which there is no controversy.

Factories and Workshops Bill.

The Grand Committee, at their meeting on Tuesday, June 18th, struck out of this Bill the proposal of the Government to apply to laundries the provisions of the Factory Acts. This was done on the motion of Mr. Matthews, who afterwards put before the Committee a series of special restrictions and regulations for laundries.

HOUSE OF LORDS.

MONDAY, JUNE 17TH.

Dogs Bill.

Lord Carrington, in moving the second reading of this Bill, said it was necessary on account of the increase of rabies in some portions of England. The reason for this increase was to be found to a great extent in the number of stray dogs wandering about the country without any sort of control and the difficulty of dealing with them. If a police officer had any reason to believe that a dog found on a highway was a stray dog he might seize it; and if no application was made for it in the course of three days it might be either sold or destroyed. The Bill also gave a police officer power to destroy any dog found on a highway which he had reasonable ground for believing was affected with rabies. It therefore gave all over the country a power at present only in the hands of the Metropolitan Police. After a short debate the Bill was read a second time.

HOUSE OF COMMONS.

THURSDAY, JUNE 13TH.

Unsound Meat in London.

Mr. Hazell asked the President of the Local Government Board whether his attention has been called to the systematic sale of large quantities of unwholesome meat just beyond the area supervised by the Commissioners of Sewers of the City of London; whether he has considered the letter of Dr. Sedgwick Saunders, food analyst to the Commissioners, written in March of this year, in which he states that the sale of meat which would be at once condemned as unfit for food by any competent meat inspector goes on openly in the shops referred to, that this outside market is in the area of the Holborn Board of Works, who have not sufficient trained inspectors to examine the meat or any apparatus for dealing with it when it is condemned, and that although the Commissioners of Sewers have made proposals to the Holborn District Board of Works to take over for a time the inspection of meat in the implicated area, the Holborn board has neither accepted the offer nor dealt with the evil in any other way; and whether, in view of the fact that this meat is distributed over the metropolis, involving great risk to the people who buy the worst of it in the street markets where it is sold as cheap meat, he will use his influence with the Holborn Board of Works to ensure efficient inspection of all the meat sold within their area, either in the way proposed by the Commissioners of Sewers or in some other way.—Mr. Shaw-Lefevre replied that the Local Government Board have no information as to there being a systematic sale of large quantities of unwholesome meat in the area in question, neither has the letter of Dr. Sedgwick Saunders been communicated to them. He then said: "Since my hon. friend gave notice of this question I have communicated with the Holborn District Board of Works and I am informed that complaints have been made by inspectors under the Commissioners of Sewers for the City of London and by the officials of some other authorities that meat which is unsound is allowed to be sold in the places referred to, that on every occasion when such a charge has been made the district board have done their best to investigate the circumstances and have called for evidence to substantiate the charge, but that on no one occasion has evidence worthy of the name been put forward. I attach great importance to the enforcement of the provisions of the law as regards unsound food, and I am informed that the inspectors of the district are constantly on the alert watching for unwholesome meat, and that whenever there is adequate evidence the district board would prosecute. The consideration of the proposal of Dr. Saunders has, I am told, been delayed pending the appointment of a medical officer of health for the district, that office having recently become vacant."

A Vaccination Question.

Mr. Hopwood asked the President of the Local Government Board whether his attention had been drawn to the case of Rose Hannah Loach, of 86, Park-street, Oldbury, who recently entered the Oldbury Small-pox Hospital, Portway-road, with her child Martha, aged five months, who was suffering from confluent small-pox; whether he was aware that Mrs. Loach, having never been vaccinated or had small-pox, resisted the importunities of the sanitary inspector and medical man at the hospital, who urged her to be vaccinated, stating that she had seen her husband and children take small-pox after vaccination, and that Mrs. Loach was discharged from the hospital on the death of her infant, after close association with the worst forms of small-pox, unvaccinated and free from small-pox; and whether it was the duty of officials at small-pox hospitals to put such pressure on persons who might object to vaccination as useless and dangerous.—Mr. Shaw-Lefevre said: "I am informed that the child referred to, who was about four months old, was suffering from small-pox in a small house where arrangements for isolation were impracticable and where three cases of small-pox had previously occurred. The mother refused to allow the child to be sent to the small-pox hospital unless she was received in the hospital with the child. The sanitary inspector endeavoured to persuade her to be vaccinated before being taken to the hospital, but she refused, and the mother with her child was then admitted to the hospital. She was, it is stated, provided with a cottage which was some distance from the main buildings where the chief of the cases were. The utmost was done to prevent her from mixing with the other cases in the hospital, and after the death of the child the mother, after a bath, and her clothing having been properly disinfected, returned to her home. I see no ground for thinking that the officers did more than it was their duty to do in the case."

FRIDAY, JUNE 14TH.

Nursing in Irish Workhouses.

Mr. McCartan asked the Chief Secretary for Ireland whether his attention had been called to a letter which appeared in the Irish papers, headed "Misery in Workhouses," signed by Sir Philip C. Smyly, M.D., chairman of the Irish Medical Association, stating that a circular letter, asking for information, had been sent to the medical officers of the workhouses and workhouse infirmaries in Ireland; whether he was aware that it was publicly declared that the replies of the medical officers showed that in forty-three infirmaries the nursing was entirely in the hands of pauper women mostly burthened with children, that these women had to take charge of serious medical and surgical cases as well as of the lunatic patients, that in sixty-one infirmaries they had charge of paupers both night and day, that in sixty-five the sanitary arrangements were of the most disgusting character imaginable, and that in forty-three of them there were neither plates, knives, nor forks for the poor inmates to eat their food with; and whether, under the circumstances, he would consider the desirability of having a public inquiry into the condition, working, and the general system of workhouses in Ireland.—Mr. Morley replied that he had read the letter. The Local Government Board informed him that they did

not consider that the letter fairly represented the actual condition of workhouses in Ireland. The statement that there were forty-three workhouses in which the nursing was entirely in the hands of pauper women was, the Board pointed out, absolutely without foundation, as there was no workhouse infirmary which was not in charge of a responsible paid officer. There were 641 paid nurses in the 159 unions in Ireland, who had no duties to perform other than the nursing of the sick. Nor did the Board think that in any case patients suffered from want of proper food, as a medical officer was entitled to order any description of food he thought fit for patients under his care. With regard to sanitation, ventilation, &c., medical officers were bound by the regulations to report any defects in such matters to the guardians, and when they did this it was the Board's invariable practice to support their recommendations. Much had been done in recent years in this direction, and doubtless much still remained to be done. The Local Government Board would welcome the efforts of any organisation working with the same objects, and they only regretted that the Irish Medical Association had not seen their way to supply them with specific information upon this subject. The Board, however, had brought under the notice of their inspectors the alleged defects, which would be made the subject of detailed inquiry by them.—Mr. T. W. Russell pressed the Government to appoint a Royal Commission or a departmental committee.—Mr. Morley said he admitted there was great cause for dissatisfaction in regard to this matter, and the Local Government Board was constantly calling the attention of boards of guardians to it.—Mr. T. W. Russell intimated that when the vote for the Local Government Board was reached he would call attention to Sir Philip Smyly's letter and raise the whole question.

Imported Milk.

Mr. Herbert Gardner, in reply to a question, said that 67,580 gallons of fresh milk and cream were imported from Holland during the year 1894, and 12,210 gallons had been received from the same source during the first five months of the present year. He might add that the value of these imports was £2835 and £451 respectively, so that competition from this quarter was really of very trifling dimensions.

TUESDAY, JUNE 18TH.

Boiler Explosions.

Mr. Holland asked the President of the Board of Trade whether, in view of the large number of boiler explosions which have occurred lately, causing great loss of life and destruction of property, he would consider the desirability of introducing a Bill making it compulsory on steam users to have their boilers duly inspected from time to time.—Mr. Bryce, in reply, said he had no certain information as to the number of boilers in use in the United Kingdom; but assuming it to be between 150,000 and 200,000, the proportion of explosions is now, as it was in 1871, about 1 in 2000 per annum. In 1871 the Select Committee on Boiler Explosions reported against the introduction of any system of compulsory inspection, one of their reasons being that a great number of these explosions arise from causes independent of and apart from anything that could be prevented by periodical inspection. Having regard to this opinion and the enormous magnitude of the task which would be thrown upon the State were it to undertake the duty of periodically inspecting all boilers, much consideration would be needed before introducing such a Bill as the hon. member appeared to contemplate.

IN COMMITTEE.

Food Products Adulteration.

Sir Walter Foster's committee met again on Tuesday, June 18th, and proceeded with the examination of witnesses. At the commencement Sir Walter Foster intimated that the committee are now prepared to examine witnesses who can tell the experience of local authorities in the administration of the Adulteration Acts.

Mr. Robinson, a member of the Kensington Vestry, said that the Food and Drugs Act had worked with good effect in his district, and would work with still better effect if the local authority could reach the wholesale dealer as well as the retailer.

Mr. Hartley Wilson, President of the Liverpool and District Grocers' Association, said that very little if any adulteration was practised by the retail grocers of Liverpool and district. In his view the invoice of the wholesale merchant should be regarded as a warranty, because he did not see why the retailer should be made the innocent victim of his fraud or that of the manufacturer. Where the law was persistently infringed he would not hesitate to inflict the penalty of imprisonment, although he thought the fines now within the power of magistrates were a sufficient deterrent in ordinary circumstances. In the case of goods known to be adulterated or believed to be injurious to public health he would have an examination at the port of entry and their sale stopped. He included preserved peas and filled cheese among these goods. As to filled cheese, he thought a distinctive name should be applied to it—such, for instance, as oleine—so that the purchaser might be protected against fraud. The trade in this cheese was increasing in Liverpool, and, in his opinion, there was a strong public case for dealing with it. He objected to the name cheesine because he did not think it sufficiently distinctive. It would lead to confusion and facilitate the very fraud they were anxious to stop. Wherever there was a difference of opinion between the analyst for the prosecution and the analyst for the defence, he would make it obligatory upon the magistrates to refer the sample to Somerset House. The analyses of Somerset House were regarded by the trade as very satisfactory. In his opinion prosecutions in connexion with margarine should be taken under the Margarine Acts and not under the Food and Drugs Act. To his knowledge customers objected to ask for margarine, although they knew perfectly well from the price they paid that they were being supplied with that article. It was impossible to make a verbal declaration with regard to the sale of margarine in a crowded shop. The repetition became wearisome and objectionable. There was a sentimental objection on the part of the poor to being heard asking for margarine. It was a false sentiment, and he saw no reason why the shopkeeper should be made the victim of it, as well as the victim of the traps laid for him by the inspectors. His association was of opinion that a larger percentage of water than 16 per cent. should not be allowed in butter. They based that opinion upon the report of Mr. Faber, the Commissioner of the Danish Government. In many butters the water was introduced to increase its weight. He was strongly in favour of the establishment of a board of referees to deal with matters arising out of the Food and Drugs Act and the Margarine Acts.

Mr. Neville Lubbock, chairman of the West India Committee, gave evidence with regard to Demarara and Trinidad sugars and the methods of imitating and adulterating them which are practised. He showed to the Committee a number of samples.

The Committee then adjourned.

The Committee met again on the following day.

Mr. Tatton Egerton, M.P., said he had acted as chairman of a conference of the London Vestries, summoned on the initiative of the St. George's Vestry, to consider the administration of the Adulteration Acts and the question of their amendment. Great difficulty was experienced in checking the adulteration of milk. At the present moment, when they had no fixed legal standard, rich milk was lowered to a standard which was likely to escape a penalty if brought before a magistrate. Milk dealers knew exactly what they could do in the way of adulteration, and he believed that at the present moment in London there was practically no unsophisticated milk sold. All the great milk companies "prepared" the milk for the market to the detriment of the farmer who supplied it. Cream in milk was not of the same value as cream outside milk, and consequently it paid to extract it. He did not think that Parliament should fix a standard. This was a matter entirely for experts, who would have no difficulty in arriving at a fair average standard. His proposal in this connexion was to have a committee of analysts and others appointed under the Local Government Board, who would take steps to find out what should be the standard for milk and other commodities, and frame rules for the guidance of local authorities in the administration of the Adulteration Acts. It was a difficulty in the present state of things that members of local authorities were frequently tradesmen, who were themselves liable to prosecution under the acts. This might account for a slackness in the administration of the Acts. He would have imported food and drugs inspected at the port of entry, so as to prevent spurious articles coming into the country. A case occurred two or three years ago in the experience of the St. George's Vestry, where butter was proved to be adulterated and sold by a very respectable tradesman, and where the action they took had a most deterrent effect, because 270 tons of butter were returned to Holland. If this butter had been examined at the port of entry it would never have got into the country. As to what he had said about unsophisticated milk, he might tell the Committee that he saw himself in the country an iron building with a small boiler and machinery driving cylinders, and farmers all sending their milk to this place, which was within 200 yards of a railway station from which a large town was being supplied with milk. He looked in and saw the separating going on, and the only conclusion he could come to was that the milk was being whittled down exactly to pass the standards which the public analyst of this large town held to be sufficient. In taking samples the vestry of St. George's sometimes employed women, but he could not say whether they were made successful in detecting adulteration than men. With regard to itinerant vendors of milk, the Conference recommended that all itinerant vendors of food or drugs should only sell from vehicles or vessels or other receptacles having printed thereon the name and address of the person who should be responsible as master for such sale, and that all itinerant vendors of milk should be registered. The Vestry of St. George's had experienced great difficulty with these itinerant vendors of milk, who, especially on Sunday mornings, did a very large business among the poorer classes. In one case when they got to the owner of the business it was found to be a child of thirteen years. They shifted their ground, frequently gave false names, and made a great deal of trouble for the Vestry.

Mr. Wynter Blyth, medical officer of health and public analyst for Marylebone, gave some account of the methods adopted in that parish in the administration of the Adulteration Acts and the results obtained. Samples of milk, he said, were regularly taken on Sunday morning, when there was special need for supervision. As to the drugs sold in the chemists' shops of the parish, he believed they were fairly up to the standards of the Pharmacopœia. He was strongly of opinion that limits of standards should be laid down for such articles as milk, butter, cream, and vinegar. At present analysts had to work on standards which were the result of appeals to Somerset House standards, not published or acknowledged, but perfectly well understood by analysts and by the trade. He did not object to the references to Somerset House if there were a little modification of the procedure. He thought, for instance, that the local analysts should be allowed to apply preservatives to the samples and to send the results and details of their analyses to be criticised. In the case of new forms of adulteration and in doubtful cases it would, in his opinion, be of great service if before a prosecution was taken Somerset House was consulted.

Mr. Stokes, Public Analyst for Paddington and Hampstead, was also examined by the committee.

BOOKS ETC. RECEIVED.

BAILLIÈRE ET FILS, Paris.

Manuel du Médecin Praticien. La Pratique des Maladies des Yeux dans les Hôpitaux de Paris. Par le Professeur P. Lefert. 1895. pp. 324.

BUSH, R. S., Fleet-street, London.

Mercantile Speller. Spelling words used in Correspondence and their Prefixes and Suffixes. 1895. pp. 468. Price 3s. net.

CADBURY, JONES, & Co., Haymarket, London, S.W.

St. John's, Clerkenwell: with historical notes and letterpress description of the Grand Priory of the Order of the Hospital St. John of Jerusalem in England. By John Underhill. With plates and other illustrations. 1895. Price 2 guineas net.

COX, HORACE, Bream's-buildings, London, E.C.

An Australian in China. Being the Narrative of a Quiet Journey across China to British Burma. By G. E. Morrison, M.B., C.M. Edin., F.R.G.S. 1895. pp. 299.

FISCHER, GUSTA Jena.

Leitfaden für Histologische Untersuchungen. Von Dr. B. Rawitz. 1895. pp. 145

Die Protozoen als Krankheitserreger. Von Dr. L. Pfeiffer. 1895. pp. 122.

Suggestion und Reflex. Eine kritisch-experimentelle Studie über die Reflexphänomene des Hypnotismus. Von Dr. K. Schaffer. 1895. pp. 113.

HIRSCHWALD, AUGUST, Berlin.

Die mikroskopische Technik und Diagnostik in der Gynäkologischen Praxis; für Studirende und Aerzte. Von Dr. Karl Abel. 1895. pp. 108.

KIMPTON, H., High Holborn, London, and HIRSCHFELD BROS., Fetter-Lane, London.

Diseases of the Eye. By E. B. Dench, Ph.B., M.D. With plates and illustrations. 1895. pp. 645. Price 21s.

LONGMANS & CO., Paternoster-row, London.

The Value of Electrical Treatment. By Julius Althaus, M.D., M.R.C.P. 1895. pp. 99. Price 2s.

MASSON, G., Paris.

Diagnostic et Traitement des Tumeurs de l'Abdomen et du Bassin. Par J. Péan. Tome troisième. 1895. pp. 1093.

PENTLAND, YOUNG J., Edinburgh.

Atlas of the Diseases of the Skin. By H. Radcliffe Crocker, M.D., F.R.C.P. Fasciculus X. Price 1 guinea net.

System of Surgery. Edited by F. S. Dennis, M.D., assisted by John S. Billings, M.D. Vol. I. Illustrated. 1895. pp. 880.

SOCIÉTÉ D'ÉDITIONS SCIENTIFIQUES, Paris.

De la Mort apparente du Nouveau-Né. Par le Dr. Demelin. 1895. pp. 174.

Maladies Internes et Maladies des Enfants. Par C. J. Smith. Deuxième édition. 1895. pp. 204.

SPINGER, JULIUS, Berlin.

Mikroskopie und Chemie am Krankenbett. Von Dr. H. Lenhartz. Zweite vermehrte Auflage. 1895. pp. 331.

THE SCIENTIFIC PRESS, Strand, London.

Burdett's Hospital and Charities Annual, 1895. By H. C. Burdett. pp. 914. Price 5s.

Experimental Observations on Tuberculous Meat, with special reference to the Report of the Royal Commission on Tuberculosis and the Seizure of Meat so Affected; by R. S. Marsden, M.B., D.Sc., D.P.H. Edin. (Wilson and Jones, Birkenhead).—King's College, London: Physiological Laboratory; Collected Papers, No. 2; edited by W. D. Halliburton, M.D., F.R.S., and T. G. Brodie, M.D.; 1895.—The Moonstone; by Wilkie Collins (Chatto and Windus, Piccadilly London, 1895); price 6d.—The Children's League of Pity Paper (W. H. & L. Collingridge, Harpur-street, Bloomsbury, London, W. 1895).—Manuel de Sérothérapie antidiphthérique; par Dr. M. Funck (H. Lamertin, Bruxelles, 1895).—Sweden: Some Hints for Visitors second edition (The Swedish Tourists' Union, Stockholm, 1895).—How to Take the Waters, Strathpeffer Spa, N.B.; Notes for Drinkers at the Wells; by J. T. Fox, M.R.C.S. Eng. (Lewis Munro, Dingwall, Strathpeffer Spa, N.B., 1895); price 6d.—The Royal Natural History; vol. iv., part 20 (F. Warne & Co., Bedford-street, Strand, London) price 1s. net.—A Strange, True Story of To-day: Wanted, a Sherlock Holmes; a chance for Amateur Detectives; by Wm. T. Stead (*Review of Reviews* Offices, London, 1895); price 6d.—The Hunterian Oration, Royal College of Surgeons of England, February 14th, 1895; by J. W. Hulke, F.R.S. (Taylor and Francis, Red Lion-court, Fleet-street, London, 1895).—Cœliotomy for Puerperal Septicæmia and Peritonitis; by C. P. Noble, M.D. (reprint from the American Gynæcological and Obstetrical Journal).—The Diagnosis of Pregnancy during the First Three Months; by C. P. Noble, M.D. (reprint from the Transactions of the Philadelphia County Medical Society, 1894).—Remarks on the Treatment of Inevitable Abortion; by C. P. Noble, M.D. (reprint from Codex Medicus, Philadelphia, October, 1894).

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

BOND, W. A., M.D., B.C. Camb., D.P.H., M.R.C.P. Lond., has been appointed Medical Officer of Health for the Holborn Sanitary District.

BROWN, R. C., B.A., M.B., B.C. Cantab., has been appointed Junior House Surgeon to the Blackburn and East Lancashire Infirmary.

COOPER, A. J. S., L.R.C.P., L.M., L.R.C.S. Irel., has been appointed Assistant Medical Officer for the Workhouse, Aston Union, vice Reith, resigned.

EDWARDS, WM. L., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer to the employés of the Barry Graving Dock and Engineering Works.

EGLINTON, G. W., L.R.C.P., L.M. Edin., L.F.P.S. Glasg., has been appointed Medical Officer of Health by the Street District Council.

FAGGE, ROBERT HILTON, M.R.C.S., L.R.C.P., has been appointed House Physician to the Leicester Infirmary.

FLETCHER, H. M., M.D., B.C. Camb., M.R.C.P. Lond., has been appointed Physician to Out-patients at the Shadwell Hospital for Children.

FOSTER, MICHAEL B., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed House Surgeon to the Leicester Infirmary, vice G. Winfield, resigned.

HAMILTON, W. CROSBIE, M.B., C.M. Edin., has been appointed Senior House Surgeon to the Blackburn and East Lancashire Infirmary, vice C. E. Maude, resigned.

HARLAND, R. H., F.C.S., F.I.C., has been appointed Public Analyst by the Greenwich District Board of Works.

HAYWARD, JOHN W., M.R.C.S., has been appointed Medical Officer for the Borough of Whitstable-on-Sea.

HOWARD, M., M.B., B.C. Cantab., has been appointed Assistant House Surgeon to the Nottingham General Hospital.

IRVINE, WM., M.D., M.Ch. Irel., has been appointed Physician to the Liverpool Hospital for Consumption and Diseases of the Chest, vice Williams, resigned.

JACOBSEN, G. OSCAR, M.R.C.S., L.R.C.P., has been appointed Medical Officer of Health for Kington, Herefordshire, vice J. Chute, resigned.

LAKE, W. W., M.R.C.S. Eng., D.P.H. Camb., has been reappointed Medical Officer of Health for Guildford.

LAZENBY, F. H., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer to the Whitley Memorial Convalescent Home and also to the Village Homes at Whitley, vice Bramwell, resigned.

MCDONNELL, THOS. F., L.R.C.P., L.M., L.R.C.S. Irel., has been appointed Medical Officer for the Fifth Sanitary District and the Workhouse of the Hailsham Union, vice Billing.

MAXWELL, J. C., M.A., M.B., C.M. Edin., has been appointed Senior House Surgeon to the Halifax Infirmary.

RAY, M. B., M.B. Edin., has been appointed Fifth Assistant Medical Officer to the South Yorkshire Asylum, Wadsley, Sheffield.

ROBERTS, F. T., M.D. Lond., L.R.C.P., M.R.C.S., has been appointed to the Chair of Principles and Practice of Medicine, University College, London.

SENIOR, A., M.B., B.C. Camb., has been appointed Medical Officer to the Esher and the Dittons Urban District Council.

STORR, F. A., B.A. Oxford, L.S.A., has been appointed Junior House Surgeon to the Halifax Infirmary.

WARD, GEO. S., L.R.C.P., L.M., L.R.C.S. Edin., has been reappointed Medical Officer for the Fifth Sanitary District of the Hertford Union.

WILLIAMS, D. M., L.R.C.P. Irel., M.R.C.S., has been appointed Consulting Physician to the Liverpool Hospital for Consumption and Diseases of the Chest.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary £150 per annum, with an allowance of £30 per annum for cab hire, and furnished rooms, fire, lights, and attendance.

BRADFORD INFIRMARY AND DISPENSARY.—Honorary Physician.

CITY OF LONDON UNION INFIRMARY, Bow-road, E.—Resident Officer. Salary £450 per annum and unfurnished residence. Applications to the Clerk, Guardians' Offices, 61, Bartholomew's-close, E.C.

COUNTY LUNATIC ASYLUM, Lancaster.—Assistant Medical Officer. Commencing salary £100 per annum, with board, &c.

DENTAL HOSPITAL OF LONDON, Leicester-square.—Two Assistant Dental Surgeons.

DISTRICT INFIRMARY, Ashton-under-Lyne.—House Surgeon. Salary £90 a year and board and lodging.

FLINTSHIRE DISPENSARY.—Resident House Surgeon. Salary £120 a year, with furnished house; rent and taxes free; also coal, light, water, and cleaning; or in lieu thereof the sum of £20 per annum. Applications to the Secretary, Board-room, Bagillt-street, Holywell, N. Wales.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident Medical Officer. Salary £200 per annum, with board and residence.

LONDON HOSPITAL, Mile End, E.—Medical Electrician.

LONDON HOSPITAL MEDICAL COLLEGE, Mile End, E.—Senior Demonstrator of Physiology. Salary £100 a year and a proportion of the fees paid for classes. Also Assistant Demonstrator of Physiology. Salary £50 a year.

LONDON SKIN HOSPITAL, 40, Fitzroy-square, W.—Assistant Dispenser.

LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W.—Assistant Resident Medical Officer for six months. Board, washing, and residence in the hospital is provided, and an honorarium of five guineas at the expiration of that term.

MIDDLESEX HOSPITAL, W.—Assistant Physician.

NEWPORT AND MONMOUTHSHIRE INFIRMARY, Newport, Mon.—House Surgeon. Salary £100 per annum, with board and residence. No stimulants provided.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill, Stoke-on-Trent.—Assistant House Surgeon for six months.

NORTHAMPTON GENERAL INFIRMARY.—Resident Dresser. Board, lodging, and washing, provided.

PADDINGTON GREEN CHILDREN'S HOSPITAL, London, W.—Assistant House Surgeon. Board and residence provided.

ROYAL CORNWALL INFIRMARY, Truro.—House Surgeon; unmarried. Salary for first year £120, increasing by £10 a year to £150, with furnished apartments, fire, light, and attendance.

ROYAL GENERAL DISPENSARY, 25, Bartholomew's-close, London, E.C.—Physician.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo Bridge-road, S.E.—Clinical Assistant and Anæsthetist for six months. Salary at the rate of £30 per annum.

ROYAL VICTORIA HOSPITAL, Bournemouth.—House Surgeon and Secretary for two years. Salary £100 per annum, with board.

SHEFFIELD GENERAL INFIRMARY.—House Surgeon and Assistant House Surgeon.

SHEFFIELD UNION.—Junior Assistant Medical Officer, unmarried, for the Workhouse Infirmary, Fir Vale, Sheffield, for six months. Furnished apartments in the Infirmary and board and washing provided.

STOKE NEWINGTON, CLAPTON, WEST HACKNEY, AND DALSTON DISPENSARY, 189, High-street, Stoke Newington, N.—Junior Resident Medical Officer. Salary £50 per annum, with board and lodging.

STIRLING DISTRICT ASYLUM, Larbert.—Second Assistant Medical Officer. Salary £80 per annum, with board, &c.

VICTORIA HOSPITAL FOR CHILDREN, Queen's-road, Chelsea, S.W.—House Physician to the in-patients of this hospital. Honorarium of £50 per annum, and will be provided with board and lodging in the hospital.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—Resident Assistant, for six months. Board, lodging, and washing provided.

Births, Marriages, and Deaths.

BIRTHS.

KEEGAN.—On June 13th, at 178, Cromwell-road, South Kensington, the wife of Brigade-Surgeon-Lieutenant-Colonel Keegan, F.R.C.S., of a daughter.

LAZARUS-BARLOW.—On June 16th, at The Acacias, Old Chesterton, Cambridge, the wife of Walter S. Lazarus-Barlow, M.D., M.R.C.P., of a son.

McBRIDE.—On June 16th, at the White House, Berkhamsted, the wife of J. Best McBride, K.Q.C.P., L.R.C.S. Irel., of a son.

SIMPSON.—On June 11th, at The Boltons, Farnborough, Hants, the wife of J. Tracy Simpson, M.R.C.S., of a son.

WHITE.—On June 12th, at Harley-street, W., the wife of William Hale White, M.D., of a son.

MARRIAGES.

ASHDOWN—THOROLD.—On June 12th, at Christ Church, Bath, by the Rev. E. P. Cole, G. W. W. Ashdown, M.D., of Tetbury, Glos., to Gertrude Beaujolois Thorold, daughter of General Thorold, late Royal Engineers.

BOGLE—MOORE.—On June 12th, at Hampstead Parish Church, James Linton Bogle, M.D., of New Ferry Park, Cheshire, to Agnes Elizabeth Collingham, elder daughter of Henry Moore, Esq., R.A., R.W.S., of Collingham, Maresfield-gardens, Hampstead, N.W.

DENNING—LIDDLE.—On June 12th, at St. Andrew's Church, Aston, Newport, Salop, Charles Ernest Denning, L.R.C.P., of The Grange, Grinshill, Salop, to Alice Maud, eldest daughter of Charles Rowland Liddle, of Newport, Salop.

ENRAGHT—GORDON.—On June 12th, at Holy Trinity Church, Anerley, S.E., William Enraght, L.R.C.P., M.R.C.S., of Curraghmore, Anerley, to Rosa Mercedes, youngest daughter of Lieutenant-General Charles Edward Parke Gordon, C.B., of Roslyn, Weighton-road, S.E.

HILLABY—CROWTHER.—On June 12th, at the Parish Church, Castleford, by the Rev. Gardner Smith, Rector of Castleford, assisted by the Rev. J. J. Christie, M.A., Rural Dean and Vicar of Pontefract, Arthur Hillaby, M.R.C.S. Eng., L.R.C.P. Lond., son of John Hillaby, J.P., of Pontefract, to Mary, youngest daughter of the late Joseph Crowther, of Weetworth, Glass Houghton. No cards. At home July 23rd, 24th, and 25th.

PAYNE—WARMINGTON.—On June 13th, at the Church of Our Blessed Lady and St. Thomas of Canterbury, Dudley, Edward Marten Payne, M.B., C.M. Aberd., of Chichele-road, Cricklewood, N.W., to Katherine Louisa, second daughter of Edward Marcus Warmington, Solicitor, Town Clerk of Dudley.

POLLARD—GRAHAM.—On Wednesday, June 12th, at the Oratory, South Kensington, by the Rev. Sebastian Bowden, Reginald Pollard, M.B., M.R.C.S., of Southlands, Torquay, to Beatrix Lucy Steuart Graham, second daughter of Major-General G. F. J. Graham, of 4, Buckingham Palace-mansions, London.

POTT—KILBURN.—On June 12th, at St. Paul's, Rusthall, Tunbridge Wells, Francis Henry Pott, M.D., of Bournemouth, to Kate Angela, eldest daughter of E. Dunbar Kilburn, of Chancellor House, Tunbridge Wells.

RAMSAY—HOPWOOD.—On June 6th, at St. George's, Hanover-square, Herbert Murray Ramsay, Surgeon-Captain Scots Guards, to Eleanor, youngest daughter of Mr. Hopwood, of Ketton Hall, Stamford.

REDMOND—BLUMFELD.—On June 12th, at St. Mary's Church, Hollyplace, Hampstead, John Johnstone Redmond, L.R.C.P., L.R.C.S.I., L.M., youngest son of the late Captain Redmond, R.M., of Queenstown, to Frieda, third daughter of Louis Blumfeld, of Brauneck, Hampstead.

WHITE—FITZ GERALD.—On June 18th, at Framingham Pigot, by the Rev. E. Kinder, assisted by the Rev. R. H. Prowse, Rector of the Parish, Richard Wentworth White, M.R.C.S., &c., 26, St. Giles-street and Chester House, Norwich, eldest son of the late Richard White of that city, to Ethel, daughter of Major Fitz Gerald, of Framingham Hall.

WILMOT—BATE.—On June 12th, at Toft Church, Cheshire, Claude E. W. Wilmot, M.D., of Alrewas, to Gertrude Isabelle, second daughter of W. Alfred Bate, Esq., of Beechwood, Knutsford.

DEATHS.

GREWCOCK.—On May 26th, at Brook House, Clapton, George Grewcock, M.R.C.S., aged 53.

MALCOLM.—On June 16th, at Gainford, John Malcolm, F.R.C.S., aged 81.

PORTER.—On June 16th, at Merrion-square, Dublin, Sir George Hornidge Porter, Bart., Surgeon-in-Ordinary to the Queen in Ireland, and Regius Professor of Surgery in the University of Dublin.

WALLER.—On June 12th, at Sydenham, Charles Beaumont Waller, M.R.C.S., aged 54.

WYATT.—On April 17th, George Robert Wyatt, M.D., F.R.C.S., late of Oxford and of Naples, in his 81st year.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (1 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynecological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.).

TUESDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Gt. Northern Central (2.30 P.M.).

WEDNESDAY.—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.).

THURSDAY.—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (2 P.M.), Soho-square (2 P.M.), North West London (2 P.M.).

FRIDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.).

SATURDAY.—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

WEDNESDAY.—DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND.—5 P.M. Dr. Shephard T. Taylor: Notes of a case of Abnormal Growth of Finger Nail. Cases to be shown by Mr. Bidwell (Rodent Ulcer of Thigh), Dr. Stowers (Disease of Nails), and others.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY.—LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital, Moorfields, 1 P.M., Mr. A. S. Morton: Ocular Injuries.—London Throat Hospital, Gt. Portland-st., W., 8 P.M., Mr. G. Stoker: Impaired Movements of the Vocal Cords.

TUESDAY.—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 2 P.M., Dr. Craig: Impulsive, Homicidal, and Moral Insanity.

ROYAL COLLEGE OF PHYSICIANS, LONDON.—5 P.M. Dr. Marcet: Contribution to the History of the Respiration of Man. (Croonian Lecture.)

WEDNESDAY.—NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3 P.M. Lecture by Dr. Beevor.

FUNERAL REFORM ASSOCIATION (Stafford House).—3 P.M. Annual Meeting.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-sq., W.C.).—5 to 6 P.M. Dr. Morgan Dockrell: Mycosis Fungoides.

LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital, Moorfields, 8 P.M., Mr. W. Lang: Iritis.—Hospital for Skin Diseases, Blackfriars, 1 P.M., Dr. Payne: Affections of the Skin produced by Animal Parasites.

THURSDAY.—LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Gt. Ormond-st., 3.30 P.M., Mr. Edmund Owen: Cases from the Surgical Wards.—National Hospital for the Paralysed, Bloomsbury, 2 P.M., Mr. C. A. Ballance: Diagnosis of Brain Abscess following Ear Disease.—Central London Sick Asylum, Cleveland-st., W., 5.30 P.M., Mr. John Hopkins: Cases in the Wards.

ROYAL COLLEGE OF PHYSICIANS, LONDON.—5 P.M. Dr. Marcet: Contribution to the History of the Respiration of Man. (Croonian Lecture.)

FRIDAY.—LONDON POST-GRADUATE COURSE.—Bacteriological Laboratory, King's College, 3 to 5 P.M., Prof. Crookshank: Tetanus, Rabies, and Cholera.

SATURDAY.—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 11 A.M., Dr. Percy Smith: Lunacy Law.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-sq., W.C.).—5 P.M. Dr. Morgan Dockrell: Psoriasis and Seborrhœic Dermatitis.

During the week marked copies of the following newspapers have been received:—*Sunderland Herald, Newcastle Daily Journal, Celestial Empire (Shanghai), Belfast Evening Telegraph, Pioneer Mail, Architect, West Kent Advertiser, Oldham Standard, Citizen, Times of India, Builder, Leicester Post, Liverpool Courier, Bedford Standard, Derbyshire Advertiser, Walsall Observer, Birmingham Post, Huddersfield Chronicle, Brighton Argus, Sussex Daily News, Ayrshire Weekly News, Liverpool Daily Post, Sheffield Telegraph, Somerset City Herald, Lowestoft Standard, Sanitary Record, Leeds Mercury, Weekly Colonist (British Columbia), Yorkshire Post, The Weekly Budget, Answers, Bristol Mercury, Sleaford Journal, The London, Yorkshire Gazette, North Herts Journal, Courrier de la Presse, Local Government Chronicle, Mining Journal, City Press, Reading Mercury, Folkestone Express, West Middlesex Standard, Widnes Weekly News, Weekly Free Press and Aberdeen Herald, Hertfordshire Mercury, Bucks Advertiser, St. Bartholomew's Hospital Journal, Surrey Advertiser, Invergordon Times, Berwickshire News, Blackpool Times, Midhurst Times, Sligo Champion, Jewish Chronicle, Oldham Evening Chronicle, Herne Bay Argus, Isle of Man Times, South Wales Daily News, Scotsman, Naval and Military Record, Perthshire Constitutional, &c., &c.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, June 20th, 1895.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo.	Maximum Temp. Shade	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
June 14	30·08	W.	56	49	114	69	52	...	Overcast
" 15	30·21	N.E.	54	47	112	67	46	...	Bright
" 16	30·21	S.W.	62	52	114	75	49	...	Hazy
" 17	29·93	W.	58	52	105	71	43	...	Bright
" 18	29·74	W.	59	54	111	76	51	...	Hazy
" 19	29·69	E.	54	53	96	68	53	0·16	Raining
" 20	29·95	W.	57	53	110	70	52	0·02	Cloudy

Notes, Short Comments & Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET should be addressed "To the Manager."

We cannot undertake to return MSS. not used.

MANAGER'S NOTICE.

A LITHOGRAPHED CIRCULAR LETTER, emanating from an office in the Strand district, is being sent to members of the medical profession, offering to supply them with THE LANCET, in conjunction with an accident insurance policy. The Proprietors of THE LANCET are in no way connected with the scheme (of which they cannot approve), and were not aware of its inception until their attention was called to it by a reader who had received the circular in question.

TREATMENT OF CANCER BY SERUM INOCULATION.

Hopeful.—We are not aware that this treatment has been tried in this country, and the trials in France mentioned by our correspondent are, we believe, almost the first of their kind. In Germany inoculation of the virus of erysipelas has been advocated on the ground that erysipelas has an adverse influence on the growth of tumours.

"STAMMERING."

To the Editors of THE LANCET.

SIRS,—My attention has been called to a letter in your last issue referring to Dr. Colman's post-graduate lecture on Stammering &c., in which the writer, Mrs. Behnke, refers to the method he quotes regarding the vocalising of sounds. This excellent method we owe neither to Dr. Wyllie nor to the late Mr. Behnke. Mrs. Behnke, instead of saying "The late Emil Behnke originated this method as far back as May, 1882," ought to have said "*applied* this method," as it originated on the Continent, where it has been advocated and put into practice for many years. I have myself applied it in many cases since 1865. I refer your readers, amongst others, to the works of Drs. Klencke (1852), Lehwess (1868), Guillaume (1868), Günther (1873), and Gutzmann (1879).

I am, Sirs, yours obediently,

Fitzroy-square, W., June 17th, 1895. WILLIAM VAN PRAAGH.

WANTED A PHILOLOGIST.

A MAN is reported to have said, in applying for a summons at a London police-court recently against a boy who had kicked his leg, that the leg was a "very serious one"—in fact, it was a "haricot leg." Noticing that his worship looked somewhat mystified, the applicant then explained that his leg had "haricot veins" in it. It would be interesting to know by what process of thought this derangement of epithets was arrived at; for, so far from being the single instance on which the phrase has come under our attention, we are aware that it is quite a usual colloquialism amongst the lower orders for varicosity of the lower extremity. But why?

WHOOPING-COUGH.

To the Editors of THE LANCET.

SIRS,—Whooping-cough being one of the most distressing and fatal maladies peculiar to children, the excellent paper produced by Dr. Wells and Dr. Carré, and published in THE LANCET of June 8th, ought to receive every consideration at the hands of the medical profession. The subject is wide and somewhat involved in mystery; yet few medical discussions could possibly be more fruitful and productive than one upon whooping-cough. I have always looked upon this disease as one primarily affecting the peripheral terminations of the trifacial nerves, and secondarily affecting the pneumogastric. We have a disease of childhood—mumps—which chiefly affects the parotid and sometimes also the submaxillary glands. Is it not likely that some microbe may have an affinity for the sublingual glands, and possibly also the submaxillary, specially affecting their epithelial or secreting structures, and causing to be poured into the mouth a quantity of vitiated saliva swarming with morbific products? The mouth, the fauces, and the stomach become immediately infected with the saliva, and irritation is set up in the terminal filaments of the fifth nerve. This nerve supplies the four glands just mentioned, as well as the papillæ at the base of the tongue and other sensitive parts that would be likely to become affected. The irritation passing up the nerve trunk would involve the other parts—the ophthalmic and superior maxillary. This would account for the redness and suffusion of the eyes and the nasal catarrh. The seat of origin in the brain of the trifacial and vagus nerves are closely approximate; so that it is not difficult to understand that an irritation might be communicated, and that the vagus, stimulated in this manner, would set up all the secondary phenomena peculiar to whooping cough. It has been proved that the saliva of man will inoculate the rabbit, and yet no change appears to take place in the blood. There is no metastatic poisoning—in fact, if it were not for the "whoop" the whole train of symptoms could be easily explained as the product of poisoned saliva causing irritation and ulceration at the mouths of the ducts of the frænum linguæ — which is generally attributed to the forcible rubbing against the teeth during cough,—causing heat and pain in the mouth and fauces, producing cough, and causing indigestion and sickness owing to the presence of the starch and perverted secretion in the stomach. It is noted that the taking of food excites the cough; and, of course, the process of eating excites the gustatory, and mastication affects the buccal, nerves.

I cannot see any semblance between whooping-cough and diphtheria, and the foregoing remarks amply explain this. As for the treatment, there is little doubt but that cocaine is the most effective remedy we possess, and Dr. Wells and Dr. Carré have done a great service in bringing this treatment so prominently forward. I have recently tried the local application of cocaine to the under surface of the tongue, with excellent effect. The last case was one of the worst I have ever seen, but when the cocaine was applied the patient began to improve at once. I think that this treatment—viz., swabbing the orifices of the salivary ducts after each fit of coughing with a 5 per cent. solution of cocaine—will be found effective. Possibly, injecting by the tubes would be more effective still. I am, Sirs, yours faithfully,

Holbeach. THOMAS JACKSON, L.R.C.S.Edin., &c.

THE PERILS OF HOLIDAY MAKING.

To the Editors of THE LANCET.

SIRS,—Now that the holiday season is commencing it appears to me an opportune time to utter a word of warning. In company with a friend I have been making a tour in Wales where we visited most of the fashionable resorts, and in each instance established ourselves in the chief hotel—so far as we were able to ascertain. With the general attention and catering I have no fault to find, but the sanitary arrangements are mostly of such a nature as to render it dangerous to reside within the buildings. It is unnecessary for me to enter upon the structural faults, but anyone should be aware that lavatories, urinals, and w.c.'s communicating with billiard-rooms, smoke-rooms, &c. are highly suspicious, and often the source of dangerous contamination, especially if ill-constructed. The sickening odour in one instance was apparent upon entering the front door, and pervaded the whole establishment; in others it was only appreciable in the billiard or other rooms, often disguised by the pungent odour of some strong disinfectant, which we were informed was "to kill the smell." It would be obviously unfair for me to mention names, and I may further say that I have no desire to injure the business of these houses, but I do feel that those who require their bodily health improved by a pure and invigorating atmosphere should be on their guard lest in their search for better health they fall into a death-trap. If the State will not adopt some measure for their protection it would be well for the general public to take the matter into their own hands.

Through the technical instruction movement surely sufficient knowledge of the graver faults could easily be acquired, and every individual made capable of avoiding insanitary dwellings.

I may add that I also inspected boarding and lodging-houses, and often found similar defects, and I would especially urge that the assurance of managers, which is as general as it is emphatic, that "the sanitary system is perfect," is quite valueless. If they desire to assist the public I should advise them to anticipate legislation by procuring a certificate from a duly qualified expert, which should be renewed each season. The cost would be nominal, and they would not only earn the gratitude of the public but also increase their incomes. It is little satisfaction to bring an action at law for an attack of enteric fever which has ruined a constitution, and I feel confident that the "change of air," now so commonly regarded as a necessity, is often fraught with danger, and that the large majority of people would be safer in healthy homes so long as they have no means of ensuring a sanitary residence at the place of their selection.

I am, Sirs, yours faithfully,
Kidderminster, June 11th, 1895. J. LIONEL STRETTON.

"THE TITLE OF 'DR.'"

To the Editors of THE LANCET.

SIRS,—I observe in THE LANCET of the 15th inst. another question as to practitioners styling themselves "Dr." or "Physician" &c. Such questions are being continually asked in your journal. Why do not the General Medical Council issue definite rules as to such matters, and insist upon every medical man describing his full and exact registrable title on his door-plate and elsewhere? In the city in which I reside numerous non-graduate medical men call themselves "Dr." on their door-plates, and an L.S.A., I observe, styles himself "Physician." If all this is wrong, why do not the aforesaid Council exercise what I presume is their undoubted right, or possibly, as some would suppose, their undoubted duty? I am, Sirs, your obedient servant,
June 17th, 1895. OBSERVER.

To the Editors of THE LANCET.

SIRS,—Very much of sense and nonsense has of late appeared in the correspondence columns of THE LANCET on the subject of titles of medical men. Without expressing an opinion further than that mentioned above, let me ask you how, in the face of your oft-repeated assertion to inquiring correspondents that none but those possessing the degree "M.D." should be styled "Dr.," you can explain the fact that M.B.'s are constantly spoken of in THE LANCET as "Doctors"? When you state the logical reason that only M.D.'s are Doctors, why do you not adhere to your statement? Even in your current issue I observe another of your answers to a correspondent whom you advise very emphatically to "describe himself as 'physician,' ..... that he has not the right to prefix 'Dr.' to his name, because he is not a Doctor of Medicine"; and yet in the very same issue there appear several instances in which you boldly violate this very simple rule. As far as mere title is concerned, according to your own words and according to all logical reasoning, surely Bachelors are not Doctors any more than are Licentiates, and any amount of party argument cannot alter the fact. I am, Sirs, yours faithfully,
June 17th, 1895. ANTI-HUMBUG.

*** We cannot find the examples of bold violation of logic that are so apparent to our correspondent. The fact that "M.B.'s" of certain universities are by courtesy styled "Dr." exists, and it would be, therefore, discourteous to withhold the title from them. We agree that the practice—one of courtesy, we may again remind "Anti-Humbug"—may be inconsistent, but it has obvious reasons. M.B.'s are graduates of universities, which alone can confer the academic title of "Doctor." How would our correspondent address the Professor of Principles and Practice of Medicine in King's College, who is an M.B., not an M.D.? It has been, rather wildly perhaps, suggested that if the universities could be induced to surrender the title of "Doctor" to the medical profession and substitute the equivalent title of "Master" in every other faculty, many people would be spared an endless source of worry.—ED. L.

Nemo.—We do not give medical advice or recommend treatment. Our correspondent had better consult a medical man, who would advise him if the condition is one that need cause any anxiety. As a rule the symptoms mentioned are of absolutely no importance.

"THE OXYBROMIDES OF MERCURY."

To the Editors of THE LANCET.

SIRS,—In reply to "S. H.," in THE LANCET of the 15th inst., p. 1559, regarding oxybromides of mercury, arsenic &c., I beg to refer him to the Extra Pharmacopœia, eighth edition, p. 83.

I am, Sirs, yours faithfully,
New Cavendish-street, W., June 17th, 1895. WM. MARTINDALE.

To the Editors of THE LANCET.

SIRS,—If your correspondent "S. H." will be good enough to send us particulars concerning the strength of the preparations he requires, we shall be pleased to make them for him.

We are, Sirs, yours faithfully,
Berners-street, W., June 17th, 1895. ARTHUR AND CO.

THE MODIFICATION OF GERMS BY CULTURE AND THE ORIGIN OF DISEASE.

WE have received the following speculations from a physician on the ever interesting question of the development of disease. Can zymotic disease, he asks, originate *de novo*? And are disease germs capable of modification in accordance with their appropriate epochs? The questions take us into somewhat transcendental regions, but are interesting, and may prove stimulative of ideas to some of our readers.

In the student days of those of us who can look back somewhat over twenty years bacteria, bacilli, and cocci were mythical beings. Their existence was inferred by such acute reasoners as the late Dr. Murchison, but was "not proven." Now, bacteriology is a science more or less exact. It is a thing in the realm of fact that cultures of germs can be made, and that by successive cultures their virulence may be subdued. With germs of disease as with their culture, "Emollit mores, nec sinit esse feros." That the converse may also be true, and that by suitable conditions germs of disease may become more virulent appears probable, and, taken together, the fact and the theory may possibly throw some light on that vexed question, the origin of disease.

Can zymotic disease originate *de novo*? Surely, it must have done so in the past, and what has been may be again. The temperature of the incandescent mass which once represented our planet was certainly too high for any disease germs to live in—*ergo*, they must at some time have originated on the earth, either before, contemporaneously with, or after the advent of man. That they can have travelled through the ether in meteoric form seems to be an absolute impossibility, and we must regard them as earth-born atoms.

The modern theory of evolution places man late in the scheme of organic life, and, if it be correct, the lower animals may have had germs of disease ready developed to make him their prey. Looking backward along the evolutionary line, the question that suggests itself is this: Man is for the most part the outcome of heredity and environment; may not a disease germ also be the result of heredity and environment, and be modified equally with its host by these factors? Into the "will" or "spirit" force, which is behind and pervades all phenomena, we are not inquiring. We must try to answer our question in the light of the physical, not the psychic. We take it for granted that a scarlet fever germ will invariably produce scarlet fever, a typhoid fever germ typhoid fever, just as man procreates man. But, granting that man is a being slowly evolved, capable of infinite modification or infinite epochs, so may disease germs be capable of modification in their appropriate epochs. Experiments in attenuation of virus go to prove that in the laboratory such modification may be comparatively rapid. It is, then, possible that the first bacillus or coccus may have been a good cell gone wrong, begetting a progeny of still more errant children. If the germs of such diseases as scarlet fever and diphtheria, typhoid fever and cholera, measles and rötheln, varicella and variola, be not really distinct species, but at least first cousins, produced by a series of evolutionary changes from similar or identical parents, the occurrence of new diseases in different eras ceases to be a mystery, and comes under the law of development by evolution, which appears to be the universal order.

If we take as one illustration syphilis, which is essentially a germ disease, we find that it never originates in the conventional connexion of a healthy male and female, and we have good reason for the inference that it can only be produced by promiscuous intercourse. That being so, where does the germ of syphilis originate but in the perverted cells of incontinent animals? Again, how can sporadic cases of cholera of the Asiatic type be accounted for? A person dies in twenty-four hours with collapse, cramps, and rice-water evacuations; yet there is no epidemic of cholera, though diarrhœa and typhoid fever may be prevalent in the district. Does not such a case point to an increased virulence, or a development under suitable conditions of some less malignant germ? Supposing this hypothesis to be correct, what is the practical lesson it teaches? It is simply this—that disease germs should be attacked in their simpler forms, and the conditions for their further development denied them. Pure air, pure water, healthy life both of mind and body, and a large reserve of vital energy are the chief antagonists to the evolution of the zymotic germ.

Regis.—What our correspondent desires to do seems to us ethically permissible; but he must recognise his risk—though it is a small and unimportant one. Our advice would certainly be to wait six weeks, and so do everything in order.

WANTED A HOME.

To the Editors of THE LANCET.

SIRS,—Will you or any of the readers of THE LANCET very kindly inform me of a home or an institution wherein a lady (aged sixty-eight) in reduced circumstances could be taken care of upon payment of £50 per annum? She is suffering from paralysis, with loss of control of the sphincters. I am, Sirs, yours obediently,
Putney, June 18th, 1895. J. FFRENCH BLAKE.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

Communications, Letters &c. have been received from—

A.—Dr. J. P. Arnold, Philadelphia, U.S.A.; Miss R. C. Arnott, Sunderland.

B.—Dr. E. Bielby, Edgbaston; Dr. C. Bovan, Paris; Dr. C. Black, Edinburgh; Mr. Lennox Browne, Lond.; Mr. J. W. Blandford, Stockton-on-Tees; Mr. H. Black, Rothesay; Mr. J. S. Buck, Eaton Socon; Mr. T. B Browne, Lond.; Mr. H. J. Bromley, Lond.; Messrs. Blondeau et Cie., Lond.; Messrs. Burgoyne, Burbidges, and Co., Lond.; British Antitoxine Manufacturing Co., Lond.; Benedict, Lond.

C.—Dr. R. W. Carter, Weymouth; Mr. A. M. Cato, Sleaford; Mr. H. Cuthbert, Clun, Salop; Mr. J. Collyer, Enfield; Mr. H. E. Clark, Glasgow; Mr. F. Clark, Bishop's Waltham; Cavendish Club, Lond., Hon. Secretary of; C. S. M., Lond.

D.—Dr. J. T. Dunlop, Borgue, N.B.; Mr. C. F. Dorrell, Lond.; Messrs. A. De St. Dalmas and Co., Leicester; D. C. J., Bradford, Manchester.

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